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Louv. Dancel, Jean F.*

OBESITY,
OR
EXCESSIVE CORPULENCE;

THE VARIOUS CAUSES

AND

THE RATIONAL MEANS OF CURE.

From the French of Dancel.

TRANSLATED AND EDITED BY

M. BARRETT, M.A., M.D.

TORONTO;

COPP, CLARK & CO., FRONT STREET EAST.

1873.





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P R E F A C E.

THE subject of "Obesity," including its cause and treatment, has received during the past few years a great deal of attention both in England and on the Continent. Thousands of persons have realized the extraordinary benefit to be derived from the simple treatment laid down in the following pages.

Some members of the medical profession have, in the course of their practice, availed themselves of the theory first propounded by our Author, but have failed to acknowledge—either through ignorance or inadvertence—the source of their information.

Under these circumstances it has been deemed an act of justice, though tardy, to place before the profession and the public a translation of the original work of DANCEL,

published at Paris, in 1854. Some slight modifications in matters of theory have, however, been introduced, which the progress of science imperatively demanded.

The invariable success which has attended the treatment of several cases of obesity in this city, in accordance with the principles established by DANCEL, warrants the assertion that the system is in every respect worthy of public confidence.

AUTHOR'S PREFACE.

To the many individuals of both sexes who are afflicted with an excessive development of fat, rendering the ordinary duties of life not only irksome but oftentimes impossible,—an easy method of reducing obesity, in nowise interfering with the ordinary daily avocations of the patient, nor demanding any diminution in the actual amount of food consumed; requiring the use of none but the mildest and most harmless medicinal agents; improving at the same time the general health, and augmenting bodily and mental vigour,—must prove acceptable.

The process will be found not a mere speculative theory, but one based upon the great laws of Nature, as manifested throughout the whole of the animal kingdom.

AUTHOR'S PREFACE

TO THE

THIRD EDITION.

CAN corpulence be reduced without injuriously affecting the general health? This is the grand question, and it is suggestive of another, which is:—an inordinate amount of fat once having been deposited in and among the living tissues, is its presence necessary for the preservation of the health and life of the individual? My answer is,—most assuredly no! Every one knows that an undue degree of corpulence is not only accompanied with great inconvenience to the individual, but is, in most instances productive of ill health, and too frequently of positive disease.

Having answered this question, another occurs:—are there any substances generally known to the profession which have the power

either to destroy fat or to cause its disappearance, and which, at the same time, will have no action upon the other tissues of the body? My reply is most assuredly there are such; and I will prove my assertion in this respect to be correct, without resorting to the use of subtle reasonings or invoking the aid of learned theories, but will be content to rest it upon the sure foundation of chemical science,—on that science which teaches the action of one body with another, which shews us that in some cases no change whatever is effected by the mechanical combination of two or more indifferent substances; and that in other instances, the chemical union of two bodies will be productive of a third, having properties wholly dissimilar from either of the two original substances:—thus, that one or more elementary substances or chemical compounds may enter into combination with a fatty body to produce a third, and yet have no power of action whatsoever upon the muscles, the

bones, the nerves, or any other than the fatty tissues of the living organism.

Knowing, therefore, the chemical constituents of fat, and also those entering into the composition of the several articles of diet which are principally made use of in the civilized world, we are enabled to say of a certain class of alimentary substances, that such contain the elementary ingredients of fat; and that if you desire to escape the inconveniences and evils attendant on corpulency, it will be well to abstain from them; and that, on the other hand, by making use of such and such alimentary substances, and that too in any quantity the appetite may prompt, there will be no danger of suffering the inconveniences alluded to, because such substances contain but a minute portion of those elements which enter into the composition of fat.

In the following treatise, a system for the reduction of corpulence, based upon the above

X. PREFACE TO THIRD EDITION.

well-recognized truths, will be found fully developed, and its correctness established by means of numerous cases brought forward, in which the results have been entirely satisfactory, and where the patients have kindly permitted me to state their names and addresses.

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OBESITY; OR, EXCESSIVE CORPULENCE.

CHAPTER I.

INTRODUCTION.

The physician has a twofold duty to perform. He is called upon not merely to alleviate pain, and to undertake the cure of disease, but he is, moreover, required to lay down rules for the preservation of health, the prevention of disease, and its too frequent concomitant, pain.

Now, health being dependent upon the due and regular performance of the vital functions by the several physiological organs of the body, any excessive development of these organs, or undue manifestation of force on their part, must, of necessity, be contrary to the general health of the body, and be productive of disease and pain.

In many persons there exists a constitutional tendency to the excessive formation of blood, occasioning a plethoric condition, and thereby rendering the individual liable to a great many diseases; others again suffer from an exalted or diminished sensibility of the nervous system,

inducing some of the greatest woes to which humanity is liable.

Many different elements are combined in the structure of the various organs of the body, and among these fat, in suitable proportion, must be recognized as necessary for the due and equable performance of the several organic functions.

This fat, however, often becomes excessive, giving rise at first to great inconvenience, after a time inducing debility, and finally constituting a disease (hitherto deemed incurable) termed obesity.

The possession of a graceful figure may be of little importance, in so far as the happiness of most men is concerned; but as regards the gentler sex, such is by no means the case. Women are too apt to believe that, in the absence of physical beauty, the possession of mental and worldly treasures can only suffice to render them endurable in their social relations. Beauty, the richest gift of nature, deserves to be carefully guarded by those who happily possess it; corpulence, its enemy, is destructive to the finest organization.

It is a painful sight to witness the many instances of women, who, though still of youthful years, and whose elegance of form, but a short time since, did but enhance their unsur-

passed loveliness of countenance, lose by degrees, in the midst of an overwhelming fat, all this relative and graceful harmony, and whose ever increasing corpulence serves only to render them ill-favoured and repulsive. In all cases, so detrimental a change is much to be regretted; but for ladies mingling in the fashionable spheres of life, it is to be borne only when such a condition can be shewn to be utterly beyond all hope of relief.

Excessive corpulence has destroyed the prospects of many, both men and women, by rendering them incompetent to discharge the duties of a profession by which they had hitherto gained an honourable livelihood. Superabundance of fat prevents an infantry officer from following his regiment—a cavalry officer from being long on horseback; and thus both are alike compelled to retire from the service. The operatic artiste, whose voice or personal beauty had been hitherto a mine of wealth to the theatre, falls into indigence, because an excessive development of fat now embarrasses the lungs or destroys her personal charms.

Every one engaged in intellectual pursuits will say that since he has increased in fat he finds that he cannot work so easily as he did when he was thin. The painter feels the want

of that vivid imagination which was wont to guide his brush. The sculptor labours with indifference upon the marble. The literary man feels heavy, and his ideas no longer flow in obedience to his will. The clerk in his office is ever complaining of the efforts he is obliged to make to resist an overwhelming drowsiness which interferes with his calculating powers, rendering him unable to compose a letter, or even to copy one. Obesity, in fact, lessens both physical and moral activity, and unfits man for the ordinary business of life.

It was in conformity with this opinion, no doubt, that the Romans at one time, wishing to have no drones among them, banished those of their fellow citizens who laboured under an excessive development of fat. One can conceive of the existence of such a law among a people who condemned to a like punishment any citizen known to be indifferent to the public welfare.

We must admit, however, that it would be a grave error to assert that all persons suffering under an excess of fat are invariably wanting in the finer feelings, or even in moral energy. There are many living proofs to the contrary. But it is among women chiefly that we witness instances of great mental refinement and susceptibility, in union with a body steadily increasing to a lamentable size.

Moralists have written that obesity is a sign of egotism; of a good stomach, but of a bad heart; and many may be found to endorse the sentiment. Unhappily people are easily dazzled with high sounding words, and the sententious phrases of moralists. This is wrong; for if we take the trouble to adopt for a moment the opposite to that which they advance, we shall often find that this opposite is not void of reason. In support of this remark many reasons can be advanced why a fat person should have a good heart, and be endowed with most excellent qualities. Corpulence, it is true, usually indicates good digestive powers; but good digestion is not incompatible with goodness of heart. One who digests his food easily ought to be better disposed towards those around him, than the sickly creature labouring under dyspepsia. What amount of temper can be expected in those who daily experience pain in the stomach while the digestive process is going on? they can have no joyousness of heart, but must continually be in bad humour, too often seen in their contracted and jaundiced features. It is a great mental effort on their part to receive you with even a seeming cordiality. We may always accost a person with a degree of confidence, whose skin is gracefully spread over a suffi-

cient layer of fat. I may be mistaken, but in my opinion we need not expect to meet in such persons great mental anxiety, or intense egotistical feelings.

Julius Cæsar was warned a few days before his assassination that an attempt would be made upon his life:—Antonius and Dolabella were accused of being the conspirators. “I have but little dread of those two men,” said he, “they are too fat, and pay too much attention to their toilette; I should rather fear Brutus and Cassius, who are meagre and pale-faced.” The end justified Cæsar’s opinion.

With respect to lean persons, I shall not undertake to oppose the general opinion that a delicate organization is emblematic of a mind endowed with a great number of most precious and good qualities, frequently used with such energy, as by its very strength to be the cause of bodily weakness. But let us beware of entering the domain of Lavater, Gall and Spurzheim. We would rather say that the emblem of health is a sufficient but not too great rotundity of person—*mens sana in corpore sano*.

CHAPTER II.

Sterility must be numbered among the infirmities induced by excessive corpulence. This is a well attested fact in reference to the human species, and also as to the females of the lower animals. One of the professors in the Medical Faculty of Paris, while explaining in his lectures how fat could interfere with conception, never failed to cite the practice of the peasantry, who hastened to send to market those hens which became excessively fat, because they then ceased to lay eggs. Even plants lose their fertility by excess of fat. A plant growing in a cultivated soil where it finds a superabundance of food becomes sterile, because the stamens are transformed into petals, causing double flowers.

The rule is, in order that a woman should be capable of conception, that she should be regular—that is to say, that she should lose each month a certain quantity of blood. Now it is asserted by medical men that, in general, those women who are thin, and who are almost without exception fertile, lose much more blood than fat women. Menstruation lasts with them from five to ten days, whilst fat women lose but

very little blood during two or three days at the most. It may be added that in the first of these three days the loss is considerable, the second day there is scarcely any, and on the third day there is more, but it then ceases.

Just in proportion as a thin woman becomes fat, her menstrual flow diminishes, and so much the more speedily, the quicker she becomes fat. Some women who have thus increased in fat have ceased to menstruate at thirty-five, at twenty-five, and even at twenty years of age. Some young girls, regular at twelve or fourteen years of age, on becoming fat, have ceased to menstruate and become chlorotic.

One great result of the anti-obesic treatment is, that while destroying the excessive amount of fat, it causes women to become regular, and thus favours conception.

Thin men in general possess greater virility than those surcharged with fat, and in proportion as this fat is developed virility is impaired and finally lost. This infirmity happens to many corpulent men at fifty, forty-five and even forty years of age. Some who were very very fat at the age of puberty, have been impotent throughout life. There are facts which prove that virility in man, like fertility in woman, may be restored on losing a superabundance of fat.

CHAPTER III.

The human skin is capable of great extension. It may be distended to four times its size, yet is not endowed with much elasticity. On this account we may notice, in very fat persons, rolls of fat about the neck, back, buttocks, arms and pubis. The epidermis, which constitutes the external layer of the skin, is but slightly capable of extension. When distended beyond a certain point, it tears, and produces those white streaks which are to be seen on the abdomen of pregnant women, or of those who have borne children, and also of those who have laboured under severe dropsical ascites. These white streaks may be formed upon all parts of the body, when the skin is considerably distended: thus they have been seen in a young woman twenty-eight years of age, who weighed three hundred and four pounds. In her case these white streaks were to be seen upon the arms, the shoulders, the breasts, &c.

The skin of the abdomen would not be sufficient to retain the abdominal viscera *in situ*,

were it not that between these organs and the integument there exists a fibrous or muscular layer, in some places double, consisting of a stronger and less extensible tissue than the skin, in order to strengthen the abdominal walls. It sometimes happens that this fleshy layer, having yielded to a certain amount of distension, occasioned by the volume of the intestines, and of their surrounding fat, and being thereby unduly stretched, permits the passing between its fibres of a certain portion of intestine or of fat, which, lying immediately under and pushing the skin before it, constitutes what is termed a hernia. Dropsy or pregnancy are frequently the primary cause of the various descriptions of hernia, termed inguinal, crural, &c. Umbilical hernia is that which is usually produced by a too great development of fatty tissue in the abdomen. The umbilicus is that part of the abdomen which is the least susceptible of dilatation. When the belly becomes enlarged to a moderate extent, the navel becomes depressed, shewing that this part does not easily yield to the pressure from within; but it is supported by the recti muscles, those two bands of fleshy fibres lying immediately beneath the skin, and passing from above downwards, on each side and close to the navel. In extreme develop-

ment of the abdomen, these muscles are displaced from their normal position near the umbilicus, and no longer lend it support. The fibres of the umbilical ring are thus separated by the pressure exerted by the abdominal fat, and a portion passing through the fibres pushes the skin before it. A small protrusion takes place, which is not yet outwardly apparent, because the remaining fibres of the umbilical ring still afford considerable resistance, and retain the ring concealed in the deep hollow which is observable in the navel of fat persons. In order to determine the existence of umbilical hernia at this early stage, the patient should be placed in the recumbent position. On introducing the little finger into the navel depression, and directing the patient to cough, we feel an impulse against the finger which is not to be felt, under the same circumstances, over any other portion of the abdominal walls.

In some cases of hernia it is not absolutely necessary to place the person in the recumbent position, but in this case it is indispensable: unless we do so the impulse cannot be felt, since it cannot take place in the upright position.

In the year 1851, a lady consulted me. She was then very fat, and the abdomen was greatly enlarged. I said to her, "You have probably umbilical hernia." "I have long feared that

such was the case," she replied, "but happily I have not. Only a few days ago my own physician examined me, and he declared that I had not. He has advised me to wear an abdominal supporter." Noticing her great enlargement, I was not satisfied of the non-existence of hernia. I begged to be allowed an examination. Having obtained her consent, I immediately detected, by the means I have previously pointed out, a small hernia in the depth of the navel cavity. She had great confidence in her own physician, and told me positively that I was mistaken. I recommended her to see her own physician, and to be examined again by him in the same manner as I had examined her. There was no doubt in my mind but that he would detect it, and such was the case; but he said that it had occurred since his previous examination: possibly so. An umbilical truss was immediately adapted; for it is only in hernia at its early stage that we can hope for a cure by means of a truss, and by removing the cause, that is to say, by reducing the mass of fat existing in the abdomen.

If the development of a small hernia is not prevented, it gradually increases, and makes its appearance upon the walls of the abdomen. At first it is of the size of a small pear, a hen's

egg; afterwards it increases to six, eight, ten, fifteen or twenty pounds weight. It then assumes more or less the shape of a mushroom, which is exceedingly troublesome, as it requires to be supported by means of a hollow truss, a species of box with springs. Umbilical hernia is to be met in more than one half the number of persons who measure fifty-five inches round the abdomen.

Such is the progress of medical science, that the following ideas as to the diseases which may be engendered by excessive corpulence, would have been deemed, twenty-five years ago, unworthy of a doctor of medicine: a hundred and fifty years ago they would have obtained the applause of the physicians of those days. At the present time I foresee—I am indeed sure, that the medical profession will acknowledge these same ideas to be founded upon reason and observation, two indispensable requisites in all that concerns the healing art.

When the system of medicine founded by Borelli was in vogue, called the “Iatro Mathematical,” it would certainly have been acknowledged that a superabundance of fat, when developed in the human body, could interfere with the vital organs in the performance of their functions, and thus be the cause of much disturbance and of many diseases.

But this would no longer have been admitted when Broussais, the distinguished author of "Chronic Phlegmasia," in our own day, in harsh and severe language, and with an air of conviction, loudly proclaimed that all disease resulted from local irritation, whence it was irradiated throughout the organism, as in the case when a sharp instrument pierces the flesh. This theory was the very opposite to the teachings of the majority of medical men of a previous age, who maintained that local disease resulted from a general disturbance of the whole system.

Thus, if the stomach were affected, Broussais called the disease a gastritis (or inflammation of the stomach), which might induce disturbance of the system at large; while many of the old school would have said that if the stomach were especially diseased, it was because nature chose that channel in order to eliminate from the body the morbid principle which in the outset had attacked the entire system.

It belongs not to the subject on hand to endeavour to signalize all the errors of the old school, nor to set forth what truth there may be in the system; but I would ask one simple question. It has happened to every medical practitioner to be called in to see a person recently taken ill, and that he has said, "The

ed disease is not yet well characterized; by-and-
o bye, or to-morrow, I shall be able to form an
in opinion, and say what the disease is." But until
ot this "by-and-bye," until this "to-morrow,"
se what happens to the patient? for it is evident
as that there is sickness, a general ailment. And
e when one particular portion of the body, an
a organ, is principally affected, when the disease
has there manifested itself, as we say, shall we
be far wrong in saying that it is a kind of
crisis? It would be just what happens, only
more evidently, in those fevers which terminate
in a critical abscess.

Nor is it advisable that I should speak of
the founder of physiological medicine. His
vast labours are the result of great genius, and
have long influenced the medical world with
all the weight of a master mind. Having been
his pupil for many years, I shall never cease to
admire his life of scientific labour. Nevertheless,
I cannot refrain from remarking how much
he has done to lessen the spirit of medical
enquiry. By localizing all diseases, and
by his system of irritation, without taking
into account the constitution as a whole, how
greatly is the labour of the physician reduced!
how little knowledge is necessary on his part
to be deemed worthy of the title of Doctor of
Medicine! Once upon the highway of locali-

zation, once engaged in this contracted study, there is no stop. It is no longer necessary to be acquainted with all the organs, both in a state of health and of disease; the extent of territory to be explored is reduced. The fashion at the present day is, that a physician of this school should know only how to treat the diseases of one particular organ, and rarely of two; that he should be, in fact, a specialist. But are not the principal organs of the body, for the most part, mutually dependent on each other, and all of them subject to a general *consensus*? What is the consequence of this medical specialism? Why, that every physician so engaged thinks, and most conscientiously, that the patient before him labours under that particular disease to which he particularly devotes his attention. This is perfectly natural. The mind of man is so formed, that it is narrowed, and loses its powers of comparision and of judgment, whenever it is concentrated and brought to bear solely upon one subject, one single object. Man is no longer capable of reasoning upon a science or an art, when he puts it out of sight as a whole, in order to devote himself entirely to one of its parts; but ends by making the subject of his study the principal point, the all-important one, whence flow, in his opinion, all the rest; and

finally assumes that a part is equal to the whole. When a patient complains of palpitation of the heart, he prescribes a bleeding, leeches, digitalis. If another complain of sense of weight or oppression, bleedings, softening syrups, troches, &c., are prescribed. If another complain of headache, dizziness, with threatening apoplexy, he is bled.

Everything is treated locally, without inquiring whether the evil be or be not the effect of some general cause.

Among a vast number of general causes, giving rise to disease, I purpose to treat of one, and that is excessive corpulence, termed obesity. In our recent medical works, no reference is made to this morbid predisposition, in regard to the diseases occasioned by it. I do not mean to say that superabundance of fat is the cause of all the ills that flesh is heir to; but I am persuaded and do affirm that it is often the primary cause of many diseases.

Thus, in cases of headache, there are assuredly many which are produced by superabundance of fat, because they commenced when that superabundance began to appear, and ceased on its being diminished. Frequent headache, becoming periodic, is constantly met with in fat people. Nothing is more common among such persons than dizziness. In these

cases, are not the blood-vessels oppressed with fat interfering with a free circulation of the blood, and is not fat therefore the cause of all these troubles?

But it may be said that the blood produces these affections, since, after loss of blood, the patients are relieved. I do not agree with this, and I say that the blood is not in such cases the cause of these ailments; because fat people, both men and women, have no more blood than thin persons: I maintain that they have even less. It is granted that loss of blood in cases of headache, vertigo, alleviate and even cure these affections; but only for a time; for eight days, or a month or two at the most, and then gradually reappear, and bleeding is again required.

This amelioration, these momentary cures, produced by blood-letting, are to be explained in such cases by saying that the quantity of blood, although not so great in fat as in thin people, is impeded in its circulation, and that loss of blood, by still further diminishing the quantity, facilitates for a while its passage through the blood-vessels.

This method is consequently only palliative; it does not attack the root of the evil. Bleeding takes away blood which is troublesome only in consequence of the excess of fat; for every physician is aware that repeated

bleedings tend to the development of fat in an extraordinary degree. Fat people insist upon being bled at more frequently recurring periods, because their corpulence continues to increase, and headaches and dizziness become more frequent. The seemingly useful remedy increases the cause of the trouble.

Notwithstanding the temporary relief, and apparent cure, corpulence finally produces such a disturbance of the brain, or of some other vital organ, as suddenly to produce death in the course of an hour or two, with every appearance of excess of health. Usually an attack of serous or sanguineous apoplexy is the cause of death in persons labouring under excessive corpulence.

It is an important fact, and one which I have noticed throughout twenty-five years of medical practice, that wherever I have been called to a case of apoplexy occurring in a fat person, death has ensued in spite of every care both on my part and of the other physicians summoned together with myself to attend the case. Bleedings, repeated three or four times in the course of twenty-four hours, leeches applied to the temples, mustard poultices, blisters—everything has failed to prevent a fatal termination. On the other hand, I can flatter myself that I have successfully treated, by

means of bleeding, leeching, &c., persons of a spare habit of body, when seized with apoplexy, some having made a perfect recovery, and others retaining only a partial paralysis. I am persuaded that physicians, if they will reflect upon the results of their practice, will acknowledge that this is their experience also. In these cases an excess of fat is prejudicial, therefore, to life. The existence of an apoplectic tendency in certain persons is admitted by all physicians, that is, in the corpulent, with a short neck. Fat plays a most important part in such a constitution. Many persons have naturally a short bony framework of the neck; but these persons, on becoming fat, have scarcely any neck; and those in whom the neck is naturally long, on the super-vention of fat about the shoulders, chest, and lower portion of the face, become short-necked. The much-dreaded predisposition to apoplexy is consequent upon the development of fat. It will be seen, on reading the remarks upon the cure of obesity, that in those cases where there has been a reduction in the amount of fat, this tendency to apoplexy and cerebral disturbance has disappeared.

Asthma, bronchitis, bronchorrhœa, pulmonary catarrh, in fat persons, both male and female, do they terminate favourably? If so,

it is only for a while, to return, again to disappear, and finally to remain permanently, with a more or less constant cough, expectoration and oppression. In such cases, permanent cure becomes impossible, unless assisted by a reduction of fat. How are these phenomena to be explained? Some physicians will say that the lungs, being oppressed, and their movements constrained by neighbouring parts, and by the abdominal viscera, become obnoxious to inflammation; while others will maintain that these bronchial and pulmonary affections of fat people, are due to an afflux of humours to the part. Explain the presence of these affections in either way, I am persuaded that a reduced corpulency will be favourable to the restoration of health. The cases which I shall hereafter adduce will sustain my views. Let us enquire into the cause of those frequent palpitations and dull pains in the region of the heart so common in persons of excessive corpulency. Pharmacopœal remedies are for the most part unavailing in these cases. We shall find, further on, in our cases of recovery, that they have disappeared simultaneously with the undue *embonpoint*, a proof that they frequently arise from obstruction to the motion of the heart. The fat which overloads it and the neighbouring viscera, occupies too large a por-

tion of the space necessary for the free execution of the heart's movements, and hence the spasms, sense of oppression, &c.

The fatty liver is well known to be a liver containing in its substance more than the normal amount of fat; a morbid condition intentionally induced in certain animals for the purpose of gain. In man the liver often becomes surcharged with fat, giving rise to obstruction of the liver. The term, obstruction, conveys an idea of the disease arising from this cause. The liver secretes bile, which, in order to reach the duodenum, flows through a small duct. If this duct be compressed, the flow of bile is impeded, and the result is uneasiness and disease. The liver is traversed by a vast number of arteries and veins, through which, in a condition of health, the blood finds a ready passage. If, however, an undue development of fat should take place in the tissue of the liver, these vessels become compressed. The inferior vena cava receives all the blood emerging from the liver, and conveys it to the right side of the heart, thence to be sent to the lungs, to undergo that aëration which, by changing it from venous to arterial blood, renders it fit for the nourishment of the various parts of the body. Any obstruction to the circulation through the liver must necessa-

may give rise to the most serious consequences ; for the blood which it contains is in no wise fitted for nutrition.

In case of obstruction to the circulation through this organ there may arise swelling of the legs, thighs and of the abdomen. It is one of the recognized causes of abdominal dropsy, *ascites* ; of dropsy of the lower extremities, *anasarca*. Hence arise those frequent swellings of the legs, with their attendant incurable ulcers, so often met with in fat people. And when we reflect that the venous circulation is carried on by means of a vital power which has to overcome the force of gravity, causing the blood to flow from below upwards, from the feet towards the heart, we can readily understand how easily any slight obstruction in the liver may give rise to serious consequences, while on the other hand it will be manifest, that the liver being freed from its excess of fat, the venous circulation will be re-established, and those troublesome affections alluded to, therewith got rid of.

However, every medical man does not see, or is not willing to see matters in this light. Many will insist that this hepatic obstruction is a chronic hepatitis, or chronic inflammation of the liver, which is to be subdued by the lancet, leeches, blue pill, Vichy water and

vegetable diet. And what becomes of the patient? I know I shall always remember a circumstance which occurred in 1829. I was at that time a surgeon attached to the military hospital of the Val-de-Grâce, where Broussais, the illustrious founder of physiological medicine, was head physician. It was my duty to make the *post mortem* examinations, to record the several abnormal conditions found to exist, and which had been the cause of death. Upon one occasion, while thus engaged, Broussais entered the amphitheatre, saying, "Bring your instruments with you, we are going to hold a *post mortem* in the city." We went to the house. A statement was required to be put on record as to the organic lesions which had produced death in the case of a young woman, about 25 or 26 years of age, belonging to a wealthy and noble family. It was of importance to have such a document, because the mother of this young woman had died at an early age, and the family wished to be able to prove in a court of law that death had not occurred in consequence of any hereditary disease. Broussais and I entered the room where lay the body of the deceased. We met there two of the professors of the Faculty of Paris, another physician, and the usual medical attendant of the family. A few words passed

in reference to the previous ailments of the deceased. The family physician, a young man imbued with the principles of Broussais, told us that he had been in attendance upon the deceased lady about a year before, for a disease other than that which had caused her death; that he had cured her by means of bleedings and leeches, and that after her recovery she had enjoyed the advantages of sea bathing; that in the illness which had just terminated fatally, he had made use of bleedings and an antiphlogistic regimen. The body of the deceased being removed from the bed and placed upon a table was remarkable for its excessive development of fat. The head having been opened, the brain was submitted to inspection and acknowledged to be healthy; and the same of the tongue, the œsophagus, the larynx, the bronchi, the lungs, the heart, the spleen, the kidneys, the bladder: the womb was somewhat engorged, and larger, heavier than normal, but without any trace of inflammation. All the principal joints were opened and found healthy; likewise glands, arteries, veins and lymphatics. The alimentary canal was carefully examined throughout, without discovering any organic lesion in the stomach or large intestine. A few reddish brown spots were, however, to be seen in the small intestine.

Broussais upon this pronounced death to have been caused by enteritis. Several of the medical men, on the other hand, were unwilling to admit that these reddish brown spots could have caused death. The liver was then examined. On separating one of the lobes a layer of grease was left on the blade of the knife, as is the case always in cutting into a fatty liver, but which phenomenon is never manifested in the case of a healthy liver. Those gentlemen who had demurred to the reddish brown spots as being the cause of death were of opinion that the fatty liver, or which is the same thing, the obstruction to the hepatic circulation had produced death. Broussais could not agree with this opinion, but dwelt upon the importance of the testimony revealed by the reddish brown spots, and a warm discussion ensued. The *post mortem* being over, I returned to the hospital, leaving these gentlemen in the midst of a discussion as to how the medico-legal statement accounting for the death should be drawn up. At this time I was scarcely able to arrive at a satisfactory conclusion, although I had already spent several years in the hospital as assistant to M. Fouquier, and had frequently listened to the teachings of Broussais, which explained all diseases as due to irritation dependent upon organic lesion; and always

ended by shewing that the only rational treatment for every morbid affection consisted in blood-letting, leeching and low diet. It may be mentioned as somewhat remarkable that at the *post mortem* held upon the corpse of Broussais, no organic lesion sufficient to account for death was discoverable. In his own person, the greatest possible contradiction to his theory was thus presented. Since that time my attention has been particularly directed to this subject. In my own practice I have constantly observed that when any obstruction occurs in the liver no progress is ever made towards the cure of diseases arising from this cause, until the obstruction is overcome, and if not overcome, that death supervenes; and the cause of this death is to be found only in the liver, as in the case of the lady just mentioned. One of the earliest signs of obstruction of the liver, is swelling of the legs and ankles, appearing at first only towards evening, and not to be noticed on the following morning, but again appearing during the day. It disappears during the night, because the horizontal position favours the circulation in the lower extremities. In this position fluids have not to contend with the laws of gravity. It is highly important that this evil should be at once remedied. The treatment for the reduc-

tion of *embonpoint* we shall find to be infallible in such cases.

It is indubitable that almost all fat women labour under some uterine affection. Some are troubled with engorgement of the organ, with a continual sensation of weight, and a dragging of the sides and back. Others suffer from falling of the womb and displacement. These disorders are frequently attended with granulations of the neck of the womb, menorrhagia, leucorrhea, &c. Pessaries were formerly the usual remedies in such cases, but latterly it has been well understood that in fat women these conditions are due to the fact that the womb, a body floating within the abdomen is depressed, displaced by the large mass of fat collected about the intestines. In order to prevent this intestinal mass of fat from pressing upon the womb, abdominal supporters have been contrived; but this intestinal mass cannot be so lifted as to set the uterus free, without making pressure upon the stomach and lungs, and so giving rise to a sense of oppression and suffocation; and even should such means afford some relief, it would prove but temporary: the cause of the trouble would be still persistent. In order to effect the replacement of the uterus, the mass of fat must be got rid of.

It is a well established fact that many fat persons are troubled with skin diseases, which resist every treatment, and a cure is effected only when, from some cause or other, the person has become thin. Would it be wrong to say that in such cases the disease of the skin is due to its over distension by fat, causing a partial stagnation of venous blood and serous fluid?

Among female patients who consult me in reference to their obesity, many complain of a general sense of uneasiness, with frequent pains in the stomach, kidneys, headache, &c., asserting that their excess of fat came on after a confinement and when they had not suckled the infant, and thence infer that their obesity is owing to a decomposition of milk within the system. I am not aware that this explanation has ever been accepted, yet I do not understand why it should not be received as valid, since it is well known that any deteriorated secretion may be absorbed and prove noxious to the general system. Pus from an inflamed vein may be thus re-absorbed, and the patient under such circumstances almost invariably dies. Why may not the secreted milk be likewise re-absorbed? I have met with many fat women from whose breasts milk constantly flowed, although they had not borne children

for the last ten years. A lady who has followed my method of treatment for obesity, says that she is certain that her excessive fat arose from her not suckling her last child, and that her milk turned into fat. She has had no children for the last eight years, and whenever she takes a child in her arms a peculiar feeling causes an abundant flow of milk from her breasts, which has all the properties of the healthy secretion.

It is now well understood that corpulency is the true cause of many diseases, yet it would be folly to assign obesity as a cause of every disease. To do so would be to detract from the value of the anti-obesic treatment. I feel called upon, however, to relate the following account given by one of my patients, the correctness of which was vouched for by several of her acquaintances. She had been subject for many years to a nervous affection, the attacks of which were so severe that she fell to the ground, foamed at the mouth and clenched her hands, but did not lose consciousness during the fit, which usually lasted from ten minutes to a quarter of an hour. Such are the symptoms of hysteria. Two years ago this lady went to the baths at Aix-la-Chapelle, where she heard of the anti-obesic treatment. Being very strong, she came to Paris and

placed herself for two or three months under my care. She had had several fits at Aix. I do not know whether she had any during the the first few days after her arrival in Paris, but at the end of a month she told me she had been perfectly free from them, and trusted that this change was due to my treatment. Such has really been the case; for since this lady has lost her corpulence, she has been free from hysterical seizure. I am aware that many thin women are hysterical. When, however, this disease is met with in a corpulent person, and that it disappears under the anti-obesic treatment, the cure may perhaps be fairly assigned to the treatment. Excessive corpulence is the cause of many affections which are often with difficulty characterized by physicians. The superintendent of a large manufactory at Belleville received a severe blow upon the left side, several years ago. Latterly he has become very corpulent, subject to dizziness and headache; moreover the left leg is swollen, and he suffers pain in the side which had been bruised. Professor Cloquet first recommended bleedings, then leeches, afterwards frictions and plaisters. The patient at length, wearied with the aggravation rather than the amelioration of his ailments, came to consult me in the month of April, 1853. In the course of two months

under my treatment he has lost his excessive corpulence, is free from pain in the side, his leg is no longer swollen; he is active, and has now no fear of being obliged to give up his business. This is another instance of disease due to obesity.

After reading the preceding remarks, some astonishment must be felt that medical writers have paid so little attention to the subject of corpulence. It has been said not to constitute a disease: that it is a normal condition: that it is a condition intermediate between health and disease: that a fat person is predisposed to disease.

For my part I cannot comprehend a condition between health and disease, with corpulence; and if such do exist it is attended with those infirmities and serious inconveniences already mentioned. Predisposition to disease and morbid tendency are, in the case of persons labouring under obesity, the precursors of serious or dangerous apoplexy, obstructions, &c.

In fine, obesity is not always a disease, because it does not always cause suffering; but it ought, nevertheless, not to be neglected, because life cannot be of long duration under such circumstances, and may terminate suddenly at any moment.

In the midst of the various duties of a medical career, I flatter myself that I have not fallen into an error, too frequent with medical men, that of referring all diseases to one single cause. Suspicion may arise that I have fallen into such an error, because I speak here only of those diseases consequent upon excessive corpulence; but I pray the reader to remember that a vast number of diseases exist which are altogether independent and foreign to obesity. It was, however necessary that I should point out those morbid phenomena which are due to an excessive development of fat in the system.

CHAPTER IV.

Physical beauty, like virtue, is a type to which all approximate in different degrees and which, when not wholly departed from, admits the possessor among the number of those accepted in the eyes of the world; but if, in the case of outward figure as with inward morality, any human attribute should appear distorted or unseemly, it gives rise immediately to a feeling of displeasure and aversion.

Occupied at present with the consideration of physical form only, it may be averred that one of the most frequent deformities of the human body consists in an excessive development of fat.

In accordance with the opinions of able physiologists, fat ought to constitute one-twentieth of the entire weight of the body in man (in the female about one-third more than in the male). It consists of a multitude of minute cells, frequently forming large masses held together by a very delicate membrane, the areolar tissue, which serves as a reservoir, and prevents the fat (which is fluid during life) from floating.

When once fat begins to make its appearance in more than ordinary amount, there is no reason why this augmentation should naturally cease at any given point. This corpulence continues to increase until some disease, often occasioned by the condition itself, terminates this frightful increase of size.

Cases of obesity are rarely met with in mountainous countries, and those having a great elevation above the level of the sea, where the atmosphere is dry; whilst they are frequent in valleys and plains at the level of the sea, having a moist atmosphere.

Men are less subject to obesity than women. The areolar tissue which contains the fat is firmer in the male than in the female, and is not so readily distended by the accumulation of adipose matter. Corpulence is usually developed after the body has acquired its full growth, but childhood is not exempt.

Not long ago, a child of four years old was exhibited at Paris, which weighed one hundred and four pounds. Dr. Coe, an English physician, makes mention of a man named Edward Bright, who weighed one hundred and four pounds at ten years of age; at twenty, three hundred and fifty-six pounds; and thirteen months before his death, five hundred and eighty-four pounds. Another person, a native

of Lincolnshire, weighed five hundred and eighty-three pounds, and was ten feet in circumference: he died in his twenty-ninth year. In another instance a man weighed six hundred and nine pounds: his coat, when buttoned, could contain seven medium-sized persons. A case is recorded of a man who weighed six hundred and forty-nine pounds and measured four feet three inches across the shoulders. In the "Javannah News," June, 1853, the following case is communicated by a medical writer: "A young man, who lived about eighteen miles from Batavia, was remarkable for his great size. When twenty-two years of age, he weighed five hundred and sixty-five pounds. He continued to increase to over six hundred pounds. He lived upon his plantation in easy circumstances. Four weeks since, his weight began to increase at the rate of a pound and a half, and subsequently two pounds a day. He died one day last week, suddenly, while sitting in his arm chair. Three days before his death, he weighed six hundred and forty-three pounds." Dupuytren has recorded the case of one Mary Frances Clay, of whom a plaster cast is preserved in the Museum of the Ecole de Médecine, at Paris. This woman, a native of Vieille Eglise, was of humble parents. Her husband travelled

as a pedler from town to town. When thirty-six years of age, she was no longer able to accompany her husband, and took her place at the door of a church, to beg her bread. Her height was five feet one inch, and her circumference five feet two inches. Her head, which was small in proportion to her size, was almost lost between two enormous shoulders, giving her an appearance of immobility. A furrow, several inches deep, was the only boundary between the head and chest. Her breasts were enormous. Looking at her from behind, the shoulders were elevated by fat, and formed two huge protuberances. The arms stood out from the body, in consequence of cushions of fat in the armpits. On observing the plaster cast of this person, the right side will be seen to be much more developed than the left, owing to her habit of lying on that side, and the fat gravitating towards it. For several years she was able to walk from her dwelling to the station at the church door, about a mile; but finally she was compelled to stay at home. She suffered, while walking, from loss of breath, and had violent palpitations of the heart. She was unable to lie down, from a sense of impending suffocation, and was obliged to retain an upright position night and day, seated in an arm-chair. Under these circumstances,

nature soon gave out. She fell sick, and was taken to the hospital, where she died. About twenty years ago there was a German in Paris, named Frederick Arrhens. He was then twenty years of age, and weighed four hundred and fifty pounds. In circumference he measured five feet five inches, which corresponded exactly with his stature. He was poor, and had lived chiefly on vegetable and milk diet.

It is almost unnecessary to describe obesity, since it is known at the first glance. The face is animated; the circulation is impeded, and renders the complexion turgid, and sometimes almost of a deep wine-colour. The eyes suffer from this impeded circulation; they are sparkling, and frequently suffused with blood. The ears, which are generally colourless in health, are, for the most part, red in those labouring under obesity. The circulation through the head being greater than through any other part of the body, and being impeded, an almost continual perspiration with great heat is established; thus it is that fat people can seldom bear to have the head covered; in some cases it even produces dizziness. As this condition progresses, if fortunate enough to escape threatened cerebral affections, the blood loses its chief characteristic, and becomes wa-

tery; such persons are pale and flabby. The integument of the lower part of the face is capable of great distension, and here, in obesity, fat accumulates, and forms on both sides an unsightly mass, sometimes reaching to the chest. A roll of fat is often found on the back of the neck. The trunk becomes enormously developed, and the breasts particularly enlarged. The arms are very fat; and as the areolar tissue which surrounds the wrist is of a close texture, fat cannot accumulate there, and the skin not being distended, a deep groove or furrow is formed, as is the case in very fat children. The hands usually participate in this excess of *embonpoint*, but at a later period than other parts of the body. The abdomen attains a vast size, and impedes walking; so that a person labouring under obesity carries the head erect, and the body thrown back, as in the case of a pregnant woman, in order to preserve the necessary equilibrium and not fall forward. The intestinal mass, with its surrounding fat, being connected with the kidneys, by its weight gives rise to a dragging sensation, and causes pain on walking. It also pushes up the diaphragm, compresses the lungs and the heart, and becomes one of the causes of the sense of oppression complained of by fat people. Many such, especially females, have between the

abdomen and the thighs deep furrows, which become scalded, and require the application of starch, or of some other powder, as is the case with infants when very fat. The integument of the thigh is readily distensible, and allows the deposition of fat as far down as the knee joint. At this point the areolar tissue is more dense, and less in quantity. The skin of the thigh, being thus distended, forms large folds, falling over the knee joint. The legs become likewise enlarged, frequently engorged, and troubled with varicosities, more especially towards the lower portion of the limb. Gradually the feet participate in this engorgement.

This general view of the outward appearance of the body of a person labouring under obesity, may give some idea of the disturbance which an excessive amount of fat can produce when situated within the body. On the outer surface it causes an extraordinary distension of the integument, giving rise, as we have before said, to various diseases, such as pimples, boils, eczema, prurigo, &c., which can only be cured by a reduction of corpulence. In the interior of the organism this same excess of fat causes displacement of the viscera, interferes with the due performance of their functions (as we have already explained), and leads to the sudden death of the patient, whilst occupying his arm-

chair rather than his bed, for he can rarely assume a recumbent position.

It has been said, moreover, that excessive corpulence modifies the intellectual faculties, diminishes their power, and may even completely annihilate them. The incessant desire for sleep, the somnolence with which fat people are tormented, is sufficient proof of the correctness of the assertion.

The experience of all medical men goes to shew that when persons of obesity are attacked by any acute form of disease, they succumb more easily than those possessing an ordinary *embonpoint*. Death usually occurs in such cases unattended with great suffering. Destruction goes on so quietly and imperceptibly, that the physician becomes aware of it only when it is too late to grapple with it.

Excessive corpulence is promoted by want of sufficient exercise, riding in a carriage, lying in bed too much, and the continued use of the warm bath. Having been told by many females, as I have said before, that their *embonpoint* had commenced after giving birth to their last child, which they had not suckled, and that they attributed the development of this *embonpoint* to their not having suckled the child, it may be asked, can this be assigned as one of the causes of excessive corpulence in

females? I mention these facts without venturing at present to give an opinion.

Some physicians, and many of the laity think that repeated bleedings tend to the development of fat. For my part, the fact is indisputable, both theoretically and as the result of experience. Bleeding removes a portion of the blood, which is flesh in a fluid state having for its object not only the nutrition of the several organs, but also the stimulation of the heart's movements, and thus the maintenance of life. Taking a little blood, is taking a little of that which maintains life, and is therefore a weakening of every organ of the body. Areolar tissue, which becomes more extensible in proportion as the body becomes more feeble, must have its power of resistance diminished by the bleeding, and more readily permit the deposition of adipose matter. This affords an explanation of the fact stated by many of my female patients, that their excessive corpulence had manifested itself subsequent to repeated blood-lettings.

Bleeding encourages the development of fat in the lower animals, as well as in the human species; a fact well understood by cattle-breeders, who put it in practice in the case of cattle which they wish to fatten. The only exception made by them to this rule, is in

reference to those animals which have a soft and yielding skin, as more frequently happens with beasts of a red-and-white colour, which are said to fatten readily. With this intention, agricultural writers recommend the use of blood-letting. An article which appeared in an agricultural journal recommends that every animal intended for fattening should be bled twice, at an interval of a few days.

Some people think that exercise on horseback is apt to produce corpulency, while others entertain a different opinion. The former maintain that persons whose business requires them to be much on horseback, are frequently fat; a remark which is made especially in reference to cavalry officers, and which is quite true. But the following explanation may be offered: A man on horseback undergoes severe exercise; and if he possesses a strong constitution, and takes a sufficient amount of food, this exercise will facilitate the digestive function, and the volume of his body will be increased. But it is necessary that the horseman should be of a very vigorous constitution. In truth, few cavalry officers are corpulent, and these few are to be met with among those who are somewhat advanced in life, and who are by nature well adapted to the profession. The greater number of cavalry soldiers, whe-

ther officers or privates, suffer much at first from fatigue. The young men who join a cavalry regiment soon grow thin, and, with but few exceptions, remain thin so long as they are in the service; and indeed it has happened that both in the case of officers and privates, in consequence of not being able to endure horse exercise, they have been obliged to be transferred to the infantry. It is therefore incorrect to regard this kind of bodily exercise as favourable to the development of corpulence.

For the development of obesity, there must exist a certain predisposition. We meet with many who do all in their power to grow fat, and who still remain thin, because, no doubt, they possess some peculiarity of organization which prevents the development of fat.

Obesity may be hereditary; that is to say, the father or the mother may transmit to their children a peculiar formation, having a tendency to make fat. From certain physiological conditions, we may recognize at an early age a natural tendency on the part of some persons to become corpulent. In the young of both sexes, where this predisposition exists, the face is broad and short, the eyes round, and the nose short and thick; the hands and feet are small, and there is a general roundness of limb. When possessed of such an organiza-

tion, obesity may be warded off by a rational system of diet, to be indicated in the following pages. But the immediate and producing cause of corpulence is to be sought and discovered in the character of the food. The present system is founded upon this principle. Medical authors assert that food has a most important bearing in the production of corpulence. They forbid the use of meat, and recommend watery vegetables, such as spinage, sorrel, salad, fruit, &c., and for beverage water; and at the same time they direct the patient to eat as little as possible. These instructions, like too many others, are given because they are asked, and that in every disease, curable or incurable, the physician is bound to offer some advice. Medical men themselves put no faith in them, since they pronounce obesity to be incurable.

Having devoted a great deal of attention to this enquiry, I have arrived at the conclusion that it is not to be wondered at that obesity should be incurable, because the very means which have been recommended to overcome it, are exactly those best fitted to induce and maintain it.

I lay it down as an axiom, in opposition to the received opinion of centuries, that a very substantial diet, such as meat, does not develop

fat, and that nothing is more capable of producing the latter than aqueous vegetables and water.

It is a principle which at first sight may appear inadmissible. Nevertheless, the consideration of a few physiological and chemical facts, within the comprehension of everybody, will suffice to prove its correctness.

The most favourable physiological condition for the production of fat, in man as in the lower animals, is a large extent of intestinal absorbent surface, the absorbent vessels being proportional in number to the amplitude of the intestinal surface. The intestines, however, are conformable to the nature of the aliment. The intestines are small in the lion, tiger and panther, because their food consists of a small quantity of flesh. The ox, on the other hand, a herbivorous animal, possesses an enormous paunch, to contain the large mass of food, yielding but little nutritive matter; consequently the herbivora must have a larger absorbent surface than the carnivora. The length of the intestinal tract in herbivorous animals is equal to fifteen times the length of the body; in the carnivora the length of the intestines is about three times that of the body; while in the tiger, feeding exclusively on blood, it equals only the length of the animal. In

this respect man holds an intermediate position, the intestines being equal in length to about five or six times the height of the individual. This provision of nature is in keeping with the character of his food—partly animal, partly vegetable. It is at his option, however, to modify this natural condition, by living wholly upon meat or wholly upon vegetables. A person whose food is very substantial, but small in quantity (as, for example, meat), does not possess the dilated stomach and intestines of the vegetable feeder, and consequently has a less absorbent surface than the latter. Among animals, we notice that the carnivora have naturally but little fat, scarcely any belly, but an enormous development of muscular power; whilst the herbivora are more or less laden with fat. Among men, it may be noticed that the corpulent shew a preference for vegetable and farinaceous food, and partake largely of water, beer, &c.

If we examine this question from a chemical point of view, we obtain the most satisfactory evidence that flesh must be productive of less fat than vegetable matter. The composition of human fat in 100 parts is

Carbon	79.000
Hydrogen	15.416
Oxygen	5.584
	———— 100.000

The principal constituents of fat, therefore, are carbon and hydrogen. Again, chemistry teaches that all food not consisting of flesh, such as vegetables, farinacea, sugars, &c., resemble fat, being chiefly composed of carbon and hydrogen; and, still more, that fat exists, already formed, in some vegetable substances, as oil of olives, oil of nuts, and oleaginous seeds. If, therefore, we introduce into the system substances rich in carbon and hydrogen, we must make fat as inevitably as the bee makes honey from its elements contained in the flowers.

On the other hand, we learn also from chemistry, that one of the principal constituents of meat is nitrogen, an element which does not enter into the composition of fat. Food consisting chiefly of meat must be less productive of fat than food mainly composed of carbon and hydrogen, such as vegetables, &c.

Distinguished chemists have endeavoured to shew in what manner the development of fat takes place in the animal economy. A paper was read by me before the Academy of Sciences, at Paris, on the 15th December, 1851, from which the following extract is made:

“Three different opinions are entertained by distinguished chemists, who have given atten-

tion to this subject. The first, that of Dumas, maintains that the fatty matter of the body is derived solely from substances analogous to fat in composition, which pre-exist in the food. The second opinion, that of Liebig, is to the effect that the formation of fat is due to a modification of those ternary compounds which constitute so large a proportion of the food of animals. The third opinion suggests that fat may arise in consequence of some special fermentation taking place in the stomach.

“Numerous experiments have been made, in order to determine which of these opinions is correct; but it may be safely said that no satisfactory conclusion has been arrived at.

“In the first place, the experiments have never been conducted under circumstances favourable to the formation of a correct opinion. It is obviously of the first importance, when conducting experiments of this nature, that the food should be supplied so as not to interfere with the tone of the general health, considered morally as well as physically. We can conceive that the deprivation of liberty, in the case of an animal usually in the enjoyment of freedom, may render the experiment of dubious import. Although man is omnivorous, it is impossible that any one can submit, for a great length of time, to live upon

one kind of food only, without suffering a sense of loathing.

“What inference can be drawn from those experiments, made for the purpose of ascertaining whether sugar is capable of producing fat, when they were made upon pigeons and doves, which were fed solely upon this substance; at one time being deprived altogether of water, and at another time allowing them as much as they chose to drink?

“Chemists wished to know if butter could engender fat, and doves have been gorged with it, being deprived of all other food during the few days that the experiment lasted; at the end of which time they died, of course excessively lean; and the experimentalists thence concluded that butter does not produce fat. What an extraordinary idea, to feed a granivorous animal upon butter solely, in order to test the question referred to! This experiment forms the subject of a paper written by me, and inserted in the proceedings of the Academy of Sciences, for the year 1844.

“Other experiments upon animals, conducted likewise by men of science, are less open to criticism than the one just referred to; yet it must be confessed that no safe inference could be drawn from them. I am about to submit a few established facts, which may throw some

light upon the question as to the cause of the development of fat.

“For several years past I have given much consideration to the reduction of corpulency in cases where it interfered with the comforts of life, and I can reckon by thousands those who have followed my instructions. I have established it as a fact, without a single exception, that it is always possible to diminish obesity, by living chiefly upon meat, and partaking only of a small quantity of other kinds of food. Make use of whatever medicine you please, it is impossible to obtain the same result in the case of a person partaking indiscriminately of everything which may be placed upon the table. There is yet another condition, without which success is impossible; that is, to absorb but little fluid, whether in the shape of soup or drink, or by means of the bath. A moist atmosphere is favourable to the development of fat: we increase in weight in wet weather.

“I have thousands of cases on record, in support of my statement. Persons from all parts of the world, who have followed my teachings, have experienced a decrease of their corpulence.”

The paper upon this subject ended by saying, that according to my opinion, fat might

be assimilated by either of the three several methods set forth in the beginning of the essay, one not forbidding the action of the others. I begged to be acknowledged by the Academy as the first who had established the fact that, in order to reduce corpulence without interfering with the general health, it is necessary to live chiefly upon meat, avoiding an excess of vegetable and aqueous food, or of any of which the basis is carbon or hydrogen.

These chemical principles are founded upon facts—upon observation. As I have said, carnivorous animals are never fat, because they feed upon a substance rich in nitrogen—flesh; which flesh makes flesh, and very little fat. They have no belly, because flesh, taken in small quantity, suffices for one day, or twenty-four hours.

It has been objected that the carnivora do not always obtain food when hungry, and that they are often obliged to chase their prey for a long time before catching it. This is true; but on the other hand, carnivorous animals, when domesticated and fed upon meat, are not more fat, and have no belly. The celebrated traveller, Levaillant, in his Travels in Africa, says that he has seen, in the southern part of the continent, flocks of gazelles, which live in the interior, numbering from ten to fifty thou-

sand. These flocks are almost continually on the move; they travel from north to south, and from south to north. Those of the flock which are in advance, and in the enjoyment of a rich pasturage, frequently come upon the borders of the settlements of Cape Colony, and are fat; those composing the centre of the herd are less fat; while those in the rear are extremely poor, and dying with hunger. Being thus stayed in their course by the presence of man, they retrace their steps; but those which composed the rear are now in advance, and regain their fat, while those which were in advance become the rear, and lose fat. Notwithstanding the vast numbers which daily perish, their natural increase suffices to maintain the integrity of the herd. In connexion with my subject I may state that these flocks are always accompanied or followed by lions, leopards, panthers and hyenas, which kill as many of them as they please for food, devour a part, and leave the rest to the jackals and other small carnivorous animals, which follow upon their steps. Now, these lions, panthers, leopards and hyenas, which need make but the slightest exertion to find food when hungry, are never fat.

It has been said, by way of objection to my system, that butchers are generally fat, due to their living upon meat. Now, I have made

some enquiries in this matter, and have satisfied myself that butchers, as a general thing, are not fond of meat, but live chiefly upon vegetable food, and usually drink a great deal. It has been said also that their good condition is due to the atmosphere (filled with animal miasm) in which they live, a supposition which has yet to be proven. Again, it has been said that hogs can be fattened upon horse-flesh. My reply is, that they drink at the same time a large amount of water. And here I may remark, that the lard of hogs thus fattened upon flesh is soft and watery, and is considered by dealers to be of little value. It is evidently not due to the flesh upon which these hogs are fed, that their fat is soft and watery, but to the great amount of fluid they imbibe.

On the other hand, those animals which are enormously fat, live exclusively upon vegetables, and drink largely. The hippopotamus, for example, so uncouth in form from its immense amount of fat, feeds wholly upon vegetable matter—rice, millet, sugar-cane, &c. Naturalists long entertained the opinion that this animal, living mostly in the water, fed chiefly upon fish. It is now, however, well ascertained that the hippopotamus never touches fish, and is wholly a vegetable feeder.

The walrus, which, according to Buffon,

seems to afford the connecting link between amphibious quadrupeds and the cetacea, is a veritable mass of fat, and lives exclusively upon marine herbage. The walrus of Kam-schatka measures from twenty to twenty-three feet in length, sixteen to eighteen feet in circumference, and weighs from six to eight thousand pounds.

The following fact may be cited as a remarkable proof that the quantity of fat in any animal is mainly dependent on the character of its food: Among the whale tribe, those monsters in size, that of Greenland (*Balæna mysticetus* of Linnæus) possesses the greatest amount of blubber, and it feeds upon zoophytes, of which many resemble as much in character the plant as the animal. The fin-backed whale (*Balæna böops* of Linnæus), which does not feed upon mucilaginous matter, but upon small fish, has a much thinner layer of blubber than the former. The sperm whale or cachalot (*Balæna physalus* of Linnæus), which feeds on mackerel, herrings, and northern salmon, although nearly as long as the Greenland whale, is much thinner. The layer of blubber is not so thick as in the fin-backed, and yields only ten or twelve tuns of oil; while the Greenland whale yields fifty, sixty, and even eighty tuns.

Now, chemistry, as we have said, furnishes a rational explanation of these facts. With the exception of flesh, all alimentary substances (the mucilaginous, the gummy, the saccharine, the aqueous, &c.) consist of carbon and hydrogen, and fat is composed of the same elements. Success in the treatment of disease would be more frequent, if medical practitioners would pay greater attention to the chemistry of the vital functions; and the reason why certain articles of diet have a greater tendency than others to the formation of fat, would, by the aid of the exact science of chemistry, be rendered self-evident.

All medical writers agree that want of sufficient exercise—as by lying too much in bed, riding in a carriage, &c.—is favourable to the development of obesity. The explanation is simple. We are all cognizant of the fact, that the body is sustained chiefly by means of food; but we also know that the atmosphere by which we are surrounded, plays an important part in the nourishment of the body. The atmosphere we inspire contains oxygen gas, a portion of which is destined to revivify the blood in its passage through the lungs; another portion we expel, we expire, no longer pure, but in combination with carbon obtained from the body, in the form of carbonic acid gas. In

proportion as the respiration is more active, a larger quantity of oxygen is taken into the system, and more carbon in combination with oxygen is expelled as carbonic acid gas. There is consequently a less amount of carbon left in the system to form fat. The greater the activity of the animal, the more frequent do the respirations become. Having said this, it is readily understood why want of exercise, riding in a carriage, lying too much in bed, tend to the development of fat; because, with this want of activity, respiration is less frequent, and the oxygen combines with a less amount of carbon, and a larger quantity is left to enter into combination with the existing hydrogen, forming fat. Consequently the mountaineer, breathing an atmosphere rich in oxygen, is generally less prone to the formation of fat than the dweller in the valley.

The Bedouin Arab, owing to the activity of a nomadic life, is never fat. Our peasantry are rarely over fat, unless they have acquired wealth sufficient to relieve them from the necessity for labor. Animals which are in constant motion, such as the roebuck and the deer, although feeding upon substances rich in carbon and in hydrogen, have usually but little fat.

Those birds which are continually on the

wing are never very fat. On the other hand, birds or animals leading an inactive life readily take on fat. A means frequently resorted to, in order to fatten them, is to feed them in a small enclosure. Some domestic animals are even deprived of all power of motion in order to hasten their fattening.

Among orientals, where the men remain seated the greater part of the day, and the women are obliged to stay in the house without ever going out, frequent examples of obesity are to be met with.

Nuns in their cloistered convents, prisoners in jails often grow fat in spite of their wretched food, because the air they breathe being deficient in oxygen, withdraws but a small portion of the carbon from the system, the remainder going to the formation of fat. It is when the human body has attained its full growth, and especially in the decline of life, that fat in excess begins to be developed. I am of opinion that want of exercise is one of its principal causes. With increasing age the step becomes more guarded, and a repugnance is felt for all bodily exertion. In this way the quality of the air, and the quantity of oxygen it contains have much to do with the formation of fat.

By virtue of that happy distribution and balance of forces to be met with throughout

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the universe, the expired carbonic acid gas of men and animals is destined to the nutrition of plants, which assimilate the carbon and set free oxygen gas. Plants being thus chiefly composed of carbon, are, when taken as food, rich in the chief constituent of fat; and fat itself is frequently a vegetable production. Mutton fat resembles that of the cacao bean, and human fat is similar to olive oil.

It is therefore clearly established that the immediate and direct cause of the development of fat in the case of men and animals is to be sought in the nature of the aliment, giving, at the same time due weight to the several general conditions which have a tendency to favor the development of obesity. All food which is not flesh—all food rich in carbon and hydrogen must have a tendency to produce fat. Upon these principles only can any rational treatment for the cure of obesity satisfactorily rest.

CHAPTER V.

ON THE TREATMENT OF OBESITY.

It can scarcely be necessary that I should record all the several methods which have been proposed and adopted for the reduction of obesity ; yet, lest I should be charged with ignorance, some mention must be made of the several useless and contradictory opinions and methods which have been adopted, frequently to the serious injury of the general health of the patient.

Some ancient authors inform us of the means that were employed in former times by slave dealers at Rome to render their merchandize fat or lean, in accordance with the requirements of the market. But these means, in our present state of society, are no longer available. I shall briefly say that the ladies of Rome, in order to reduce the size of their breasts, which, when largely developed, were considered unsightly, were in the habit of using a poultice composed of Lemnian clay, lime, sugar, parsley and white of egg. I have used this poultice to arrest the secretion of milk after childbirth,

and under its influence the breasts have diminished in size to such an extent that it was manifest a reduction of the fat surrounding the glands had taken place. Instead of Lemnian earth, I substitute an argillaceous substance possessing all its properties. This poultice is the only remedial means worth recalling: all the others which are given are based upon superstition or some vulgar error. Thus it was believed to be possible, by means of a surgical operation, to remove with safety the fat *en masse* from the abdomen, in the case of persons labouring under obesity. This belief has derived support from a story related by the historian of a certain pacha named Schisman, who it is said always had a surgeon accompanying him in his travels, whose duty it was to remove the fat from his abdomen whenever it became troublesome.

In 1718, Rothonet, a Parisian surgeon, is said to have delivered a well-known personage of that time of an enormous belly. After the operation the person became small and active. Rothonet was soon besieged on all sides by a crowd of people desirous of undergoing the operation of delarding. Rothonet explained that the person upon whom he had operated had been afflicted with a fatty hernia protruding from the umbilicus, and covering the whole

external surface of the abdomen ; that by removing this mass of fat he had restored the former agility of the patient ; but that he would never dare to open the abdominal walls for the purpose of removing fat. Many people, however, believe to this day that it is possible thus to remove fat.

Cases are recorded of individuals of excessive obesity, who, being subject to the authority of an absolute master, have been submitted to most rigorous treatment for the purpose of reducing their fat. They have been shut up in a room, and fed upon an amount of food only sufficient to sustain life, and consisting solely of dry bread and water. Dry bread and water however, in sufficient quantity, and an endurable captivity, are not infallible means of inducing leanness. A foreign prince, still young, and subject to the will of his father, has been submitted to this treatment for some length of time, in the hope that his excessive fatty development might be arrested. But in spite of violent exercise, and the use of medicinal means, the prince weighs, at the present time, over three hundred and fifty pounds. In the case of horse-jockeys requiring to reduce their weight to the necessary standard, we may observe that, in order to accomplish their object, they put on a large amount of extra clothing,

and take violent exercise (by running or otherwise) during several hours, and afterwards, while bathed in perspiration, are submitted to violent friction by means of a coarse cloth. The employment of such means is not devoid of danger; but the fat lost is soon recovered if the general health has not suffered impairment.

Drinking vinegar is a means unfortunately too frequently resorted to for the reduction of corpulence. This acid destroys the mucous tufts of the absorbents in the alimentary canal, and consequently only an insufficient quantity of nutrient matter is introduced into the system, thereby inducing a general wasting. When death does not result, the patient is for a long time, and frequently ever afterwards, subject to gastralgia, &c.

A lady once consulted me who, during a whole month, had taken every morning, while fasting, a spoonful of citric acid with syrup. It had not the effect of reducing her *embon-point*, but had given rise to painful sensations in the stomach, which lasted for several years. I am sorry to say that I have known medical men, who, from their standing in the profession, ought to have set an example of prudence, when consulted in reference to the reduction of corpulence, have ventured to prescribe the use of iodine, iodide of potassium, and even

arsenic in small doses. Patients whom I have seen, and who have followed these prescriptions, have told me that they have been compelled to abandon them before obtaining the desired effect, owing to the troublesome consequences attending the use of these powerful medicinal agents. The law takes cognizance of crime less serious than that committed by the physician, who prescribes such poisons when not imperatively called for.

Many authors, both ancient and modern, and many physicians also, recommend, in order to reduce obesity, that the patient should eat a less amount by weight than the body loses. By such means a wasting of all the organs of the body would be simultaneously effected; not only fat, but muscle, nerve, tissue, blood—all must suffer.

At the same time these authors universally forbid the use of meat, and permit only an exclusively vegetable diet. Any one, after reading the preceding pages, is competent to judge how great must be the error of these writers, who always end, however, by affirming obesity to be incurable. Incurable, no doubt, it is, by such treatment. But to diminish obesity, without affecting the general health, the patient must feed chiefly upon meat. I say chiefly, because man, being naturally dis-

posed to partake of both animal and vegetable food, cannot live exclusively upon meat without prejudice to his general health. The use of a small quantity of vegetable matter will not prevent the diminution of fat. At a future page the several alimentary substances will be arranged from a chemical point of view, in the order they truly occupy as reducing or inducing obesity. For the present, it may be stated that among alimentary substances, exclusive of meat, those containing the greatest amount of water, such as watery vegetables, sweet fruits, &c., have an especial tendency to develop fat. The result of my own observation, in a great number of cases, is in perfect accordance with the chemical fact, viz., that the chief constituents of fat are also constituents of water. So that although a person should live exclusively upon meat, and at the same time drink a great deal, he would not experience any perceptible reduction of fat. This affords an explanation why many who eat very little, but drink large quantities of water, beer, cider, brandy or wine, labour under obesity. Whoever desires to avoid corpulence must therefore feed chiefly upon meat, partaking very sparingly of any other kind of food, and at the same time should drink but little.

Nor can it be supposed that, although obe-

dient to the previous directions, the vast mass of fat existing in the body of an obese person will disappear in the course of a few hours. They who are exceedingly anxious to get rid of it speedily, whether for appearance sake, or because it is productive of inconvenience, infirmity or ill-health, must make use, at the same time, of those medicinal agents which help its removal. Among substances having an affinity for fat, the alkalis hold a prominent position; and these, when administered in the usual medicinal doses, are productive of no inconvenience, but increase rather than lessen the appetite, and aid the removal of fat. Soap pills have been in vogue for centuries, for the cure of portal obstruction. Vichy water is also recommended. The free alkali contained in the soap pills and in vichy water, is the active agent in such cases. Many persons are known to have grown thin while using Vichy water; and, on the other hand, many thin persons have resumed their natural *embonpoint* under its use. An emaciated patient, suffering from liver disease, will regain his normal weight, on recovery from the disease, whether using Vichy water or not.

Cullen, in his *Elements of the Practice of Physic*, mentions a Dr. Fleming, who had sometimes succeeded in reducing obesity by

the use of soap pills; and the author himself recommends, for the same purpose, abstinence, together with the use of alkalis, that is, to eat as little as possible of the least nutritive food, such as vegetables, and to drink water. The author states, as the result of his observation, that fat persons must not be bled; that loss of blood only weakens the system, and favors an increase of obesity. Another author speaks of the value of alkaline baths in the treatment of the obese.

Under the head of "Obesity," in the Dictionary of Medicine and Practical Surgery, we find the following:—"Our colleague, Dr. Melier, has witnessed the speedy reduction of great obesity in a lady, under the use of bicarbonate of soda and soda water, which had been prescribed with another object in view. If this effect should prove constant, we might be inclined to agree with him, that alkaline substances are capable of inducing saponification of fat in the living body, and that the resulting compound, being more soluble, is more readily absorbed. Whatever may be the explanation, it would be well to repeat the experiment, and we shall endeavour to do so upon the first opportunity."

I am not aware that the experiment has been repeated; but if it has been, the result has

probably not proved satisfactory ; because, for its success, the patient taking alkalis should be fed chiefly upon meat, with a small quantity of vegetables, and but little drink. Failing these conditions, alkalis are powerless. Cases do occur, of persons growing thin, who intentionally have done nothing to reduce their fat. In the same way it might happen that while making use of alkalis, without observing the precepts laid down, the fat might disappear. Such a case would be exceptional, and extremely rare.

Alkalis alone are incompetent to cure a case of obesity : this is capable of chemical demonstration. If a supply of fat, equal in combining proportion with the alkali ingested, be supplied by means of food to the body, the action of the alkali upon the previously deposited fat constituting the obesity, must be null. For the speedy reduction of obesity, therefore, the food must contain a less than ordinary amount of the elements of fat, by making it to consist chiefly of meat, and bringing about a reduction of the superabundant fat by means of alkalis, which should be administered in every variety of form, in order not to induce a sense of disgust on the part of the patient.

While undergoing this course of treatment, the person should not be called upon to make

the slightest change in his ordinary habits, or in the amount of his daily labour. His appetite, which ought to be excellent, should be always satisfied; and while losing fat, he ought to experience increase of muscular firmness and vigour. Such have been the invariable effects produced in those patients under my immediate care, as will be fully shewn in the cases about to be reported.

After ten or twelve days of this mode of treatment, and with the help of alkalis, obese patients experience a feeling of freedom from oppression, and already a reduction of fat has become apparent. This diminution continues; and by the end of the month, which is the shortest period of treatment, the weight has been reduced to the extent of ten pounds at least; but if the instructions have been rigidly observed, thirty pounds or even more. And this course may be continued for six months or longer, with marked improvement of the general health.

CHAPTER VI.

CASES OF REDUCTION OF CORPULENCE.

In the month of August, 1849, M. Guénaud, a master baker, still residing in the Rue St. Martin, Paris, presented the following appearance:—Age, twenty-eight years; height, four feet eleven inches. His obesity was such that he was scarcely able to walk, and whenever he attempted to do so, suffered from difficulty of breathing. When standing for a short time, he experienced great pain in the region of the kidneys. He was incapable of superintending the workshop and attending the flour market, duties which devolved upon him as manager of an extensive bakery. An unconquerable drowsiness overcame him the moment he sat down, and rendered him unable to attend to his numerous accounts. When in bed he was obliged to be propped up by a number of pillows, in a semi-recumbent position; for if his head happened to be too low, he suffered from vertigo, dizziness, &c. His countenance was suffused, and the veins of the head, especially the temporal, were more than usually distended. The slightest exercise was attended with

excessive perspiration. The cerebral circulation was so much impeded, that he could not bear even the pressure of a hat; and asserted that he would not dare to stoop, even were it to insure him a fortune. In this distressing condition he sought the advice of a physician, under whose directions he was repeatedly bled, and freely purged. He was recommended to live upon the smallest quantity of food that nature would permit, and to diet chiefly upon watery vegetables, such as cabbage, turnips, salad, spinach, sorrel, &c., and only occasionally to partake of a very small quantity of meat. He was also directed to use active exercise, to work in the bake-house, and to take long walks. But he found it impossible to follow the latter part of this advice, on account of a feeling of impending suffocation, and severe pains in the region of the kidneys. He was therefore recommended to take exercise on horseback; but this even could not be borne, and in spite of every effort his obesity was constantly on the increase. At last he could not walk a quarter of a mile, and was obliged to confine himself to the house, passing his time in a listless, somnolent condition, entirely deprived of all mental and bodily energy. His mother, who lived in the neighbourhood of Paris, having seen the advertise-

ment of my book upon Obesity, and thinking of the melancholy condition of her son, procured a copy and read it. She thereupon brought her son in a carriage to my office. Guénaud was quite out of breath from having to ascend one pair of stairs; he seated himself upon a sofa in my room, and soon fell asleep. Occasionally he would wake up, and take some part in the conversation. The mother and her son went home, and on the following day Guénaud began to carry out the directions he had received from me; and at the end of thirteen days he was able to walk from the Porte St. Martin to La Chapelle, where his mother resided, delighted at having recovered the use of his legs. What astonished him most was that he had been able to perform the journey on foot, without once taking his hat off. The latter remark may appear trivial; it shows, however, the great inconvenience he had been wont to suffer from the violent perspiration hitherto induced by the slightest exercise. By the end of the month Guénaud had reduced his weight from one hundred and ninety to one hundred and seventy-four pounds, and his circumference round the belly from fifty to forty-three inches. He was recovering his activity, both of mind and body, and his respiration was already considerably improved. The treat-

ment was continued two months longer, and at the end of the three months his circumference was reduced fourteen inches, having lost forty pounds of fat. His muscular powers were now much increased. Guénaud had a very short neck; the two masses of fat, which made his cheeks appear continuous with his chest, have disappeared. The line of the lower jaw is now perfectly distinct, and without the slightest wrinkle. Instead of his former aged appearance, induced by obesity, his figure is now youthful, his countenance intelligent and sparkling. Before commencing my system of treatment, the patient was in continual danger from threatening head symptoms. It was generally said, even by the medical men under whose care he had placed himself, that he suffered from excess of blood; yet he has not lost a single drop during the whole course of treatment, and is now free from somnolency, giddiness and headache. The veins of the head are no longer turgid, nor does he suffer from excessive perspiration of the head.

I am satisfied that this man, at the present time, has more blood in his system than he had when labouring under obesity; but the circulation being now free, all inconvenience has disappeared.

It is unnecessary to add that, owing to the

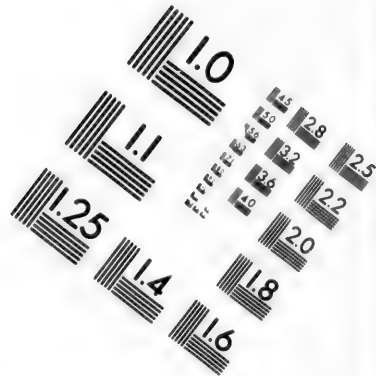
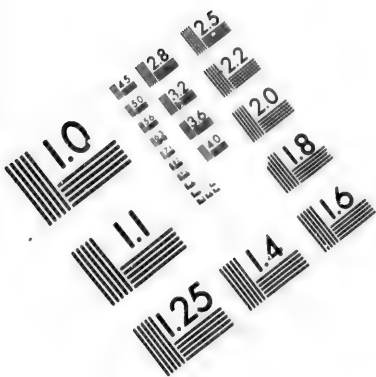
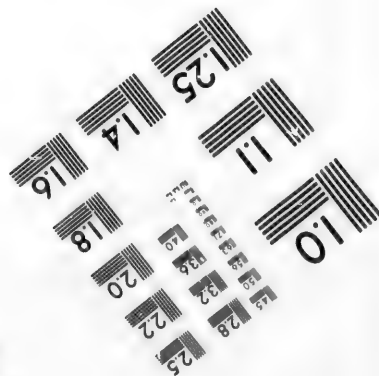
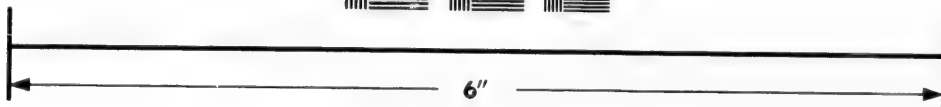
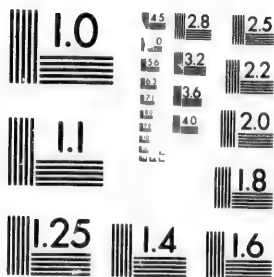


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lungs being no longer oppressed on all sides by a superabundance of fat, their movement is unimpeded, air finds easy access, and the difficulty of breathing, with sense of impending suffocation, no longer exist. Guénaud can now sleep in the ordinary recumbent position. Men of great corpulence, when walking, experience severe pain in the kidneys, and this arises from the enormous mass of fat which surrounds these organs, inducing by its weight a dragging sensation. Guénaud, having lost his big belly, is no longer troubled with this uneasiness when walking.

With respect to this patient, and in all the other cases which have come under my care, it may be well to remark that the muscular system has recovered its tone, and that the muscles are harder than they were before treatment; and I can safely say, without fear of contradiction, that every person who has been submitted to my system for the cure of obesity, is convinced that his flesh, his muscle, has increased both in firmness and in size.

I have had men under my care weighing two hundred and fifty pounds. Upon the occasion of their first visit, having felt their limbs, I have said, "I can diminish your weight by fifty pounds; but these enormous muscles will be increased rather than dimin-

ished in size. You must not expect a reduction of more than fifty pounds; but fifty pounds less of fat, distributed among organs overloaded with it, will be highly beneficial to health."

Guénaud is far from being thin, but he is strong and muscular, and has the physical and moral energy of a robust young man. His enormous size had rendered him conspicuous in that part of the city where he carried on his business as a baker; but when he had become reduced to the normal size of other men, the change produced considerable sensation, and excited curiosity as to the cause. He has done justice to the treatment which has made him once more a man. I will also do him the justice to say that he has honestly carried out my instructions. A beefsteak or a couple of cutlets, with a very small allowance of vegetables, together with half a cup of coffee, constituted his breakfast. Dinner consisted of meat and a very small quantity of vegetables. From being a great water-drinker, he had come down to an allowance of a bottle or a bottle and a half of liquid in a day. When thirsty he drank but little at a time; and between meals, used to gargle his mouth with fresh cold water.

A lady, residing in the town of Montereau, wrote to me in the early part of September,

1849. She was twenty-six years of age, and weighed one hundred and seventy pounds. Her corpulence was increasing to such an extent that she would soon be unable to attend to her household duties. She wished to know if my system of treatment would interfere with her general health, and whether it would prevent her pursuing her usual and indispensable daily avocations. On receiving the necessary explanations, she immediately placed herself under my care, and upon the 23rd of the same month, she informed me that her weight was already considerably less, but that her size remained about the same. A letter of the 12th October following states that she has lost fifteen pounds weight, and that her size is materially diminished. The treatment was continued for some time longer, and never caused the least interference with the discharge of her domestic affairs.

In the course of the following year I received a communication from Widow Rollin, of Versailles, stating that she is the only support of a large family, which necessitates great exertions on her part: that a daily increasing corpulence with most troublesome abdominal enlargement gives rise to the most serious anxiety as to the future. Provided no interruption in her daily duties be required she would cheerfully submit

to my treatment. She wrote after seventeen days trial of the system:—"My corpulence is perceptibly diminished, and I am no longer afflicted with drowsiness after meals. I follow rigidly the instructions you have given me, and each day feel more deeply indebted to you. At the end of the month I shall do myself the honour of calling upon you, as it is my wish to continue under treatment until entirely freed from my encumbrance. I can now walk with ease, which was for a long time an impossibility. The pain in the loins has likewise disappeared."

Mr. G. Chauvin, a lawyer, living at Castellane, in the department of the Lower Alps, owing to his increasing corpulency, was subject to great inconvenience when speaking in court. He adopted my mode of treatment, and in one of his letters, dated November, 1851, he says: "I have followed your directions, which have effected the result I was led to expect. My family have expressed their astonishment at the sudden and extraordinary diminution of size. But it has been effected without the slightest bad symptom: the bodily functions have been duly discharged, and the treatment has been unattended with inconvenience or danger, &c."

Madame d'Aries, a resident of Bilbao, in Spain, wife of the French Consul wrote to me on the 12th of May last:—"Following your directions, I have lost weight. Since my last two confinements the abdomen had remained unduly large: it is now much smaller. I feel lighter. I have always been able to walk without experiencing much fatigue. It was a great trouble, however, to move from my seat. A peculiar inward feeling, which was a source of great annoyance, has become almost imperceptible. I can go up stairs without bringing on shortness of breath, and the benefit derived is as evident to myself as it is visible to others."

On the 12th of April, 1851, I received a letter from Mr. Roberts, of Tours, in which he says:—"I am twenty-seven years of age, and weigh two hundred and six pounds. I fear that my great corpulence, which is constantly on the increase, may prove exceedingly troublesome. Having read your book, I am resolved to give your method of treatment a fair trial. You will oblige by giving me an explicit and detailed statement as to what is necessary to be done, and by sending from Paris such medicines as may be necessary."

On the 22nd of the same month Mr. Roberts wrote as follows:—"I weighed two hundred and six pounds, and now weigh only one hun-

dred and ninety-two. I measured forty-three inches in circumference, and now only thirty-one inches. I am delighted with the success which has attended your system of treatment, and am happy to be able to inform you of it. Accept my sincere thanks, for I am indebted to you for a condition which I despaired of ever again attaining. Yours truly,

“ROBERTS.

The following letter has been also received :

“SAINT DIE, 24th Nov., 1850.

“SIR,—Having read your book on the treatment of obesity, I wish to ask if you will undertake my case, although living at a distance of three hundred miles from Paris. I am fifty years of age, and possessed of a vigorous constitution. Since I have retired from business, now ten years ago, I have steadily increased in corpulence ; my present weight being one hundred and eighty-nine pounds. I am troubled with an affection of the heart, shortness of breath, and my legs swell, especially when not taking much exercise on foot. I am not fond of walking, since it induces great fatigue. My belly has become much enlarged, and I am greatly troubled with drowsiness. For breakfast I use coffee with milk, although I am not fond of it, but I find that it prevents headache,

to which I am otherwise subject, &c. You will oblige me by sending the necessary instructions, if you can take charge of my case, by the bearer of this letter, together with such medicines as you may direct.

“Yours, &c. K.”

In answer to Madame K., I sent her the medicine, together with the necessary information. On the 25th of February I received a letter, from which the following extracts are made:—“Your directions have been scrupulously observed for the past fifteen days. I take a daily walk in the mountains, and to-day was weighed. I have lost but four pounds: too small a reduction I fear; but perhaps due partly to my temperament. The medicine requires to be taken in larger doses, I think. Nevertheless I am well satisfied with the result thus far, being now free from those troublesome palpitations of the heart to which I have been hitherto subject.”

The 9th of April following this lady wrote: “My legs do not swell as they used to do, and the palpitations have ceased. I am delighted with this good result of your method of treatment.”

Nothing more was heard of Madame K. until the month of August in the following year. She then writes that in accordance with

the advice of the medical men of Saint Dié, she, together with her family, went to take the waters of Plombières. That on her return her legs were again swollen, and that she suffered from palpitation of the heart, which gave rise to a choking sensation. She was desirous of again undergoing the anti-obesic treatment. On the 30th of September following she wrote that she had followed my instructions during the last three weeks, and had lost only four pounds in weight; but added, I have obtained a much more valuable result, and that is, the almost total release from my troublesome heart palpitation. I have not since heard from this lady, but I have no doubt that she has been once more cured of her palpitation, and that she is no longer troubled with swelling of the feet and legs. The loss of fat in this case has been attended with freedom from palpitation of the heart, from shortness of breath, and from swelling of the lower extremities. What explanation can be given as to the cause of these results? As to her ailments, did they arise from an excess of blood in the system, or was she suffering from cardiac disease? Physicians thought so and bled her, administered sedatives and alteratives, and restricted the diet of the patient. Still they did not cure her. On the other hand I recommended her food should

consist of meat principally ; that she should be allowed strong coffee and wine ; which, together with the employment of alkaline remedies, reduced her fat and effected a cure. The following season she goes, together with her family, to the springs, and returns thence afflicted in the same way as before, and again my mode of treatment produces the same result.

It is manifest that this heart affection, this shortness of breath, depended upon obstruction to the heart's action, and not upon any excess of blood in the system, since I abstracted no blood, but on the contrary, administered stimulants, together with the use of full meat diet. The swollen limbs arose no doubt from a partial portal obstruction, and ceased when the reduction of fat was effected. It may be urged that the patient was better, or even cured, of heart palpitation, before she had lost much in weight. She had lost, however, four pounds ; and four pounds of fat occupy a large space. The fat in a living body is fluid and very light. A pound, therefore, is a large quantity. When a person begins to lose his corpulency, the reduction takes place first in the interior of the body, and consequently there is a great improvement during the first six or eight days in the general health of obese patients, when

treated in accordance with the principles now advocated.

An English lady wrote to me from Dieppe, on the 15th of July, 1852. The following is an extract from her letter:—"Arrived here only a short time ago. I at once made trial of your plan for the cure of obesity, and have already experienced considerable improvement. I have not yet had an opportunity of being weighed, and therefore cannot assert positively that my actual weight is less than it was, but I certainly feel lighter, and my hands are neither so red nor so fat as formerly."

Madame Meuriot, an actress, then staying at Chatellerault, addressed me under date the 21st of August, 1851. Her letter is exceedingly lengthy and full of minutiae, that would be improper to lay before the public. But she informs me that her weight in the course of a single year had increased from one hundred and twenty to one hundred and seventy-five pounds. In order to retain her theatrical engagements, she determined to use every possible means to overcome this troublesome *embonpoint*. She took her food in quantity barely sufficient to sustain nature; made use of sea biscuit instead of bread that she might eat less. For some time past she has been taking daily forty drops of the tincture of iodine, under the

direction of a physician, but without appreciable benefit. Every portion of the body was loaded with fat, and the lower part of the legs were swollen. Having met with my book and dreading the effects of the iodine upon her general health, she was anxious that I should advise her. I did so; and sent the medicine, together with necessary directions from Paris to Perpignan, where she was then staying. I received a letter from her on the 9th of October following, in which she says:—"I am happy to inform you that your treatment has been attended with the most satisfactory results. My legs are no longer swollen. I walk with greater ease than formerly, and my breathing is no longer oppressed. I am unable to say how much my weight has decreased, not having ready access to platform scales; but my gowns tell me that my size is less than it was, yet not as small as could be desired." In conclusion she wished to know whether she might continue the treatment a month or two longer, and if I thought so, to please send her the requisite medicine. I did so, and heard nothing further from Madame de Meuriot until the month of August in the following year. She was then on her way to fulfil an engagement at Lille, and called to see me. She expressed great delight in having got rid of her

troublesome *embonpoint*, and said that she had not been afflicted with swelling of the legs since placing herself under my treatment. "But something has occurred which I did not in the least expect: since my corpulency has left me, I have become *enceinte*."

A letter from this lady, dated Lille, the 13th October last, begins thus:—"Since I last had the pleasure of seeing you, on the occasion of my departure from Paris, I have become fully satisfied that I am in the family way, and have been so for the past eight months." My advice was requested on some points having reference to her then condition.

The preceding facts tend to shew that reduced corpulency is favourable to conception.

Towards the latter end of 1850, the wife of Dr. Pecquet, of Paris, purchased my work on Obesity. Having read it, she spoke to her husband about it, who said that, like most medical men, he was persuaded that the only way to reduce corpulency, is to eat less than the system demands.

Madame Pecquet, then about sixty years of age, had long been troubled with excessive corpulency, and weighed two hundred and fifty pounds. She had, in consequence of this affliction, passed the greater part of the last eighteen years either in her arm-chair or in

bed. According to some of the most celebrated physicians of Paris, and also of her husband, her disease at one time was said to be pulmonary catarrh—at another time, disease of the heart—and again, something else; till at length Madame Pecquet had no rest, day or night.

If she attempted to go to sleep in the horizontal position, she was immediately troubled with a rush of blood to the head, accompanied with the most distressing hallucinations, which utterly prevented her from sleeping. She was unable to take exercise on foot, even when her ailments allowed her any respite, owing to the excessive pain she experienced in the region of the kidneys, and the abundant perspiration of the head, which a walk of even a few steps was sure to induce. It was consequently impossible for her to go out, unless in a carriage. Those only who are unable to enjoy this pleasure, know how great a privation it is not to be able to take a walk on a fine day, and how wearisome it is to be compelled to make use of a carriage in order to enjoy the advantages of fresh air, or to move from place to place.

Madame Pecquet was so situated, and many a time she has said,—“Eighteen long years have I been in this condition! Eighteen years of suffering and misery, in spite of every

medical aid which has been bestowed upon me!" Under these circumstances, we can readily understand how anxiously she must have sought a means of cure. One day, without the knowledge of her husband, she took a carriage, and called to consult me.

Those who believe as I do, that an excessive development of fat may induce and sustain a generally diseased condition of body, will readily admit that the diminution of excessive obesity is the only rational means of cure in such a case.

Impressed with this idea, Madame Pecquet called upon me, and placed herself under my care. I prescribed some medicine, which she took without the knowledge of her husband, who, although eating at the same table, did not perceive that she partook of less vegetables and ate a larger quantity of meat than usual. Having continued the treatment four months, Madame Pecquet said to her husband,—“I have been following the anti-obesic treatment, and weigh at the present time one hundred pounds less than I did before commencing it. Formerly I was confined to my arm-chair, in consequence of catarrh or something else. I could not walk fifty yards without stopping to take breath; and now I can go out every day if I please, when the weather is fine. Night,

formerly so wearisome, is now a season of delightful and refreshing repose ; and, in fine, I have recovered my health, after eighteen years of continued suffering."

I again met this lady last year, and found her in the enjoyment of perfect health. She had not regained her *embonpoint*, but was in all respects perfectly happy, and gratefully ascribed her recovery to my system of treatment. On the recommendation of this patient, Madame de M., in the month of June, 1852, requested me to call upon her. She was between thirty and thirty-five years of age, and during the last eight years she had become enormously fat. She was ailing, and had been under treatment for almost every variety of disease. Most of the medical men whom she had consulted, owing to the pain she complained of, ascribed her trouble either to organic pulmonary lesion, to bronchial affection, or to disease of the heart. She had tried every means of cure. Had been under the care of many of the principal physicians to the hospitals of Paris, and also of professors of the faculty. Deriving no advantage from these, she had consulted homœopathic practitioners, and had been treated by them unavailingly. In her despair, she had sought the advice of a female clairvoyant ; and in order that she

might obtain every possible benefit from the treatment, had taken her into her own house—but her sad condition was in no wise ameliorated.

Possessed of a naturally active and energetic temperament, she was nevertheless compelled to remain seated in an arm-chair, yet could not lean back in it, owing to a sense of suffocation which such a position was sure to induce. When weary of this erect position, the only relief she could obtain was by leaning upon her left elbow, resting on the knee of the same side. If she attempted to recline upon the right side, she was subject to fits of coughing and suffocation. Her days were passed in this position: at night she was obliged to sit upright, without any support to her back; and when overcome with weariness, would fall forward upon the left elbow, the only support she could endure. Finally, however, in consequence of the great and continued pressure of the weight of the body, the elbow became inflamed, an extensive sore formed upon it, and a pad for the elbow became necessary. She had scarcely any appetite, and had long since given up the use of meat. She could walk a little about her apartment, and although her sister had lived for the last six years in the house on the opposite side of the street, she

had not been able to visit her. Madame de M. although by no means tall, weighed between one hundred and eighty and one hundred and ninety pounds. Under percussion the chest proved resonant throughout, and air entered freely the whole extent of the lungs. By the aid of the stethoscope a râle was heard in both lungs. Beneath both clavicles there existed scars, the result of blisters and cauteries. And the whole surface of the chest and the pit of the stomach were covered with the marks of leech bites. There were no febrile symptoms. Complexion blonde, with a remarkably fair skin and large blue eyes, which seemed never to have known pain. Under such circumstances no organic lesion either of the lungs, the bronchi, or of the heart could be suspected: and I was satisfied that the great disturbance of health in the case of this lady arose from excessive obesity. Having placed herself under my treatment, she experienced relief the first week, and, at the end of a fortnight, Madame de M. had perceptibly grown thinner. One morning, when calling to see her, I was told that she had gone for a ride to the Bois de Boulogne, and that she had been out also the day before, and was able to get in and out of the carriage without assistance. She continued to lose her *embonpoint* and her health became

thoroughly re-established. She was able to lie down in bed, and upon either side. At the end of the month she visited friends whom she had not called upon for the last six or eight years, and six weeks or two months after commencing my treatment, she danced repeatedly at a ball given by her sister upon the occasion of her recovery. Until then she had not worn corsets for the last six years.

It was not until the month of October following, that I again had occasion to see Madame de M. Not feeling well, she sent for me. She had caught cold the day before, when returning late in the evening from the country, and was slightly feverish. She was, however, quite well again in a day or two. The last two years she has enjoyed excellent health, although, like most other ladies, she is occasionally subject to trifling nervous attacks. In the enjoyment of health and riches, she leads the fashionable life of a gay young lady. How forcibly does her present condition contrast with the previous eight long years, passed in weariness and suffering!

In the month of June, 1852, Mr. Lucian Eté, chief operator in the chemical works of Mr. Christofle, silverer and gilder, Rue de Bondy, sought my advice in reference to his corpulence, which gave him much anxiety, as he

feared that he would be obliged to give up work. The sole support of a numerous family, it required his utmost efforts to go through the duties of the day. Obligated to be constantly in motion, and frequently to go up and down stairs, he suffered great pain in the kidneys, and was often so much out of breath that it was almost impossible for him to speak when giving his orders or explanations. His head was constantly bathed in perspiration; and if he attempted to sit down for a moment, he was immediately seized with an irresistible drowsiness. He had been repeatedly bled and purged, but without any salutary effect.

Lucian Eté followed my plan of treatment for two months. During the first month he lost from fifteen to twenty pounds of fat. I do not recollect how much he lost in the second month, but at the end of this time he was so far reduced that further treatment was unnecessary. Let it be observed, that during the two months he was under treatment, he was not absent a single day from his duties in the factory.

I heard from Lucien d'Eté last year. He was then in the enjoyment of perfect health, and his corpulence had not returned.

Mons. Desrenaudes, living in the Rue du Faubourg St. Honoré, became very corpulent

in a comparatively short time. This was a source of great inconvenience to him, from the fact, that being much devoted to the pleasures of the turf, his increased weight unfitted him for the saddle. During the year 1852, he followed my system of treatment for two months, and obtained most satisfactory results, and, as in every other case, without necessitating the slightest interference with his daily avocations.

Madame d'Hervilly, residing in garrison at Elbœuf, with her husband, a captain in the 2nd regiment of the line, having met with my treatise on Obesity, came to Paris in order to consult me. After her return to Elbœuf, she adopted my system of treatment, and a fortnight afterwards wrote as follows:

“6th July. — Your predictions have been verified. I am now in excellent health, and no longer suffer from the great oppression to which I was formerly subject during hot weather. Your medicine, according to my experience, is everything that can be desired; but I have been a sufferer for the last thirty years, and it will take some time to effect a perfect cure. I have not perceptibly diminished in size, but am sensible of a peculiar freedom of motion of the internal organs. My husband also intends shortly to put your system in practice.”

On the 11th August, this lady wrote again, to say that she was still pursuing the treatment; that she had not weighed herself, but was then several inches less in circumference than before.

The treatment was continued, and she became thin. Her husband subsequently adopted the system for a month, and derived great advantage from it. I cannot say how much his weight was diminished; but his great desire was to get rid of an unsightly cushion of fat, situated upon the back of his neck. I learn from Madame d'Hervilly that this unmilitary-like appendage has disappeared.

On the 7th August, 1852, M. Alcide Desbouillons wrote to me from Brest, to the effect that his corpulence was a source of great inconvenience; that his duties required him to be much on horseback, and consequently in hot weather he suffered greatly from fatigue. He weighed two hundred pounds, and measured forty-nine inches in circumference. On the 2nd September, after twenty days' trial of my system, and, as he says, perhaps not as rigorously carried out as it should have been, he weighed himself again, and obtained the following result: Weight, one hundred and eighty-nine pounds; circumference, forty-five inches. Twenty days after this he weighed

one hundred and eighty-seven pounds, and measured forty-three inches in circumference. This was but a slight difference; yet M. Desbouillons, after the first few days of treatment, could walk with less difficulty, was more active, and was no longer bathed in perspiration. In his last letter he says, "I am continuing your plan of treatment, and expect to find a notable amelioration both in size and weight. The effects produced by your medicine have been in perfect accord with what you had led me to expect. The experiment appears so far conclusive, and I trust that my case will prove thoroughly demonstrative."

If free from prejudice, and willing to acknowledge the truth of that which is manifest, the cases we have just cited ought to satisfy any candid enquirer that obesity may be entirely overcome without prejudicially affecting the general health. At first sight, this would appear undeniable; yet medical writers, who have hitherto insisted that a meat diet is conducive to the development of fat, and that vegetables have an opposite tendency, will not frankly acknowledge their error.

Physicians who have derived their knowledge from books, and from the lectures of their teachers, must find it difficult to change their opinions in reference to obesity. With

the public, when any one is told that the imbibition of large quantities of water is productive of fat, and that feeding upon animal food induces leanness, a similar degree of doubt is excited as when Galileo asserted that the sun did not revolve around the earth. On the publication of the first edition of my treatise upon Obesity, I experienced a degree of impatience, and even irritation, in view of the systematic opposition which a self-evident truth received at the hands of the medical profession. At the present time, however, I calmly recognize that the same happened in the case of every attempted innovation. I call to mind how Galileo endangered his very existence. Vesalius, the founder of anatomy, was saved from the stake only by the interference of his sovereign. Harvey, the discoverer of the circulation, was compelled to seek royal protection from the attacks of the medical men of his day. Peyssonnel, a physician of Marseilles, and a great naturalist, devoted himself to the study of corals and madrepores. In 1727, he laid before the Academy of Science a monogram, proving to demonstration that corals and madrepores are structures due to animal life; that what Dioscorides, Pliny, Linnæus, Lamarck, Tournefort, &c. &c. had thought to be flowers, are in truth animals;

and that these living creatures constructed and augmented their abodes; the Academy, like most learned bodies, admitted as truth only that which it taught, and consequently paid no attention to this memoir, which, nevertheless, was destined to produce an entire change in a large department of natural history. When, long afterwards, Trembley published his discoveries on fresh-water polypes, the studies of Dr. Peyssonnel in this direction were remembered, and naturalists were forced to admit that the physician of Marseilles was right in maintaining that what had been taken for flowers are in reality animals. His claim as the discoverer of a fact which was destined to effect an important revolution in an extensive department of natural history, has since then not been disputed, nor could it be. All men, and men of science especially, require time before yielding to evidence, when that evidence is in opposition to preconceived views, and interferes with personal interest.

The system I have introduced progresses, and, as some might say, works wonders, and effects cures in France, in England, in Belgium, in Austria, in Russia, in Turkey, in Africa; and in almost every instance, my patients are persons occupying prominent positions—magistrates, state authorities, general

officers, or men of wealth, who have enjoyed the advantages of a good education, and are able to judge of and appreciate the merits of my mode of treatment. The judgment of such a tribunal should convince the incredulous. This is no matter of faith. I lay claim to the possession of no revelation, which is not to be explained, or which is to rest solely upon my assertion. I do not say that my discovery is a mystery, and that it is your part to believe in it. Under such circumstances, disbelief would not astonish me, notwithstanding all the cases of cure brought forward; but when the nutrition of the body is explained in accordance with the laws of nature, when it is shewn to be in conformity with the well understood laws of chemistry, and that facts are cited, in reference both to man and the lower animals, in support of these phenomena, I confess that opposition to this system excites my astonishment. Physicians cannot by any possibility advance sufficient reasons against a system which, when once explained, must appear self-evident to every one.

Another fact in support of this system must be submitted to my readers. What would a medical man say if I should venture the following piece of advice: You have a horse you wish to dispose of. He is a good beast,

and travels well, but he is thin. If he were fatter, he would look better, and you could sell him to greater advantage. Make him fat; and if, in order to do this, I advised him to give his horse a double allowance of oats, he would only laugh at me. He would say; why, everybody knows that if you wish to fatten a horse, the best way is to give him, in addition to an abundance of hay, bran, mixed with plenty of water, or in other words, bran mashes; or the horse may be sent to pasture, to live upon grass, which is composed principally of water and a small proportion of ligneous matter. Under such circumstances, the horse will make fat, and his form will become more round and plump; but if, when he was thin, he was able to travel thirty miles without sweating and without fatigue, now that he is fat he will scarcely be able to go five without being covered with sweat, and without shewing manifest signs of fatigue. When thin, he was a good horse; but being fat, he has lost his best qualities, which can be restored only by feeding him again upon less bulky food, with a due allowance of oats, and a small proportion of water.

I have been informed that the gentleman in charge of the stud of King Charles X. availed himself of the knowledge of this fact, and

allowed only half the usual quantity of water to the horses under his charge, and that this plan was attended with the most satisfactory results, the horses being thereby able to endure a greater amount of fatigue than under a full allowance of water.

To return to the cases of cure. Madam C., a landed proprietor, living in the Rue de la Concorde, at Paris, went to take the waters in Germany, in the year 1851. On her return, she made trial of my system, on account of excessive corpulence. Meeting with the usual success, she thought it would be of great advantage to a young lady, a friend, whom she had left behind her at the watering place, and who was then in bad health. This young person, about twenty-three years of age, was very fat, and irregular in her menstrual periods. She was of lymphatic temperament, very pale, and rarely partook of meat: her ordinary food consisted of vegetables, sweetmeats, cakes and sweet fruits; water was her principal beverage. At the pressing instance of Madam C., Miss C. visited Paris, in order to be under my care. After following my directions for a fortnight, her health was much improved. Her parents then came to Paris, and I continued in attendance on Miss C. for three months. At the expiration of this time, she returned with her

parents to Brussels. She had lost much of her fat, and had become regular. She ate meat principally, both at breakfast and dinner, and drank wine. I may lay claim, in the case of this young lady, to have effected a complete change of temperament. With but trifling menstrual flow, and great pallor, she was gradually progressing to a state of obesity, which would have proved entirely destructive to health, which would have ended in a total suppression of the menses, and ultimately in death. But now, having overcome her obesity, the menstrual flow has become normal in quantity, the digestive powers have resumed their functional activity, so that she can partake of meat and wine, and in every respect her constitution is fully restored. Should she marry, she will in all probability have a family, which would have been very doubtful had she married while in the previous obese condition; and if she have children, her accouchements will be comparatively free of danger, and her sufferings much less; for it is well known that very corpulent females have more difficult labours than those of ordinary *embonpoint*; while the offspring of the latter are at the same time healthier. The same rule applies in the case of the human female as with other mammalia; when fat, conception is of more rare occurrence; and

when they do conceive, they are very liable to miscarry. When, however, they go to the full period of gestation, the progeny of a very fat mother is almost always lean, and possesses little vitality. Moreover, the milk of a very fat mother is neither so abundant nor so nutritious as that of a moderately thin mother.

M. Albert C. was an officer in the 4th Hussar regiment. He became so corpulent that he wished to exchange into the gendarmery. In 1852, he was appointed lieutenant in this branch of the service. His new position, however, still required him to be much on horseback; and when required to travel any distance, and to trot for a short time, he suffered much from difficulty of breathing, and complained of a sense of oppression in the region of the heart. It seemed as though the heart had not sufficient space for the execution of its movements. Feeling naturally anxious about his health, he wrote to me desiring to place himself under my care. Impressed with the idea that his trouble was consequent upon his excessive corpulence, I gave him advice, which he followed for several weeks; but in consequence of a severe wound in the leg, which obliged him to keep his bed, and undergo a surgical operation, he left off my plan of treatment. Some time afterwards, he fell sick; he

was bled, leeches, &c., and partially recovered his health; but the heart affection became exceedingly troublesome, especially when on horseback. His physician advised him to return to Paris. On his arrival, he resumed my system of treatment, and after a fortnight experienced great relief; his appetite had improved, he slept well, and the pain which he had suffered in the region of the heart disappeared. When he came to Paris, he was scarcely able to walk, but at the end of fifteen days he could walk all over the city. His health became thoroughly re-established on the loss of his obesity, and he was enabled to resume his military duties.

On the 18th of February, 1853, I received a letter from Mr. L., superintendent of a royal factory at Annecy, in Savoy, in which he says: "You were kind enough to send on the 20th of April, 1851, medicine sufficient for two months of anti-obesic treatment. Your directions were scrupulously attended to during the first month, and I experienced considerable benefit—in fact I lost nine pounds in weight, and felt more active and much more fit for business. Circumstances prevented my continuing the treatment during the second month and the medicine has been lost. After the lapse of two years I am anxious to resume

your plan of treatment, &c.” It is now a year since Mr. L. wrote to me, when I sent him all that was requisite. I have not since heard from him by letter, but I know that the second treatment was equally satisfactory. Owing to his favorable report of my system, a notary of Annecy, during the course of last summer, sought my advice. I am also indebted to him for other patients.

In the month of June, 1853, Madame de L., of Amiens, consulted me on her own behalf, and also on that of her husband—both labouring under obesity. I gave her the necessary directions, together with medicine sufficient to last two months. She wrote to me on the 2nd of July in the following terms :

“SIR,—In fulfilment of my promise, I send you a statement of the result of your treatment. My husband has lost eleven pounds in weight, and enjoys excellent health. As for myself, owing to severe indisposition after my return home from Paris, I have only adopted your treatment during the last eight days. Please inform me whether the medicine you furnished to me a month ago is too old to be of any service.

“I have the honour, &c.,

“F. L.”

I answered this letter, and no doubt the lady has derived as much benefit as her husband from the treatment.

“NISMES (GARD) 4th Aug., 1853.

“SIR,—I have read with much interest the second edition of your precepts, based upon chemistry, for the diminution of obesity, and have carefully examined every statement you have so clearly set forth. The result is, that I am anxious to follow your advice, and to place myself under your course of treatment. I am a doctor of philosophy and professor in the Imperial Lyceum at Nismes. During my whole life I have struggled against this terrible obesity, but almost always in vain. Nevertheless I have succeeded upon two occasions: the first, about twenty years ago, by travelling on foot for three months among the forests and mountains of the north of Europe; the second time, about twelve years ago, by dint of continued and intense intellectual labour. Owing to the sedentary nature of my duties, obesity has since returned in a more threatening manner, and is no doubt the exciting cause of many ailments to which I am now subject, such as accumulation of mucus in the air passages, giving rise to cough, more especially troublesome because I am obliged to talk during the greater part of the day; cold feet, with swel-

ling of the legs and ankles, &c., so that I am no longer able to perform the duties upon which my daily bread depends. My medical attendant can do nothing for me. He has prescribed purgatives and a vegetable diet, without any good result. I have taken thousands of Morrison's pills, and am worse rather than better, and now my mind is made up to make a trial of your plan of treatment, in full confidence that a cure may yet be accomplished.

“DOCTOR HALBERG,

“Professor at the Imperial Lyceum of Nismes.”

On the 8th of June Dr. Halberg wrote:

“I find myself infinitely better, my breathing is easy, and I am considerably reduced in size. My great desire is that the swelling in my legs may wholly disappear.

“DR. HALBERG.”

Towards the latter end of 1851, Madame Wimpy, from the town of Marle, came to consult me in reference to her husband, who was labouring under obesity to such a degree as to be unable to attend to his business. I gave her the necessary advice, together with some medicine. On the 19th of December Madame Wimpy told me by letter that her husband had already much improved, that his breathing was easier, he was more capable of exertion,

and that his corpulence had notably diminished. This lady again wrote to me in the following year, requesting a further supply of medicine. She said:—"My husband, before commencing your treatment, weighed two hundred and seventy pounds: he now weighs only two hundred, and hopes to weigh still less. You are no doubt in the frequent receipt of letters seeking advice, for we have many inquiries for your address."

In truth the case of M. Wimy has brought me a great many patients. Anxious to know whether he still continued my plan of treatment, and wishing to introduce a statement of his case in this the third edition of my work, I wrote to M. Wimy on the 16th of October last and received the following reply:

"MARLE, 19th Oct., 1853.

"SIR,—In your letter of the 16th, you requested me to give a somewhat detailed statement of my case. I commenced the treatment under your directions, the latter part of 1851, and continued it during the early part of 1852. My weight was two hundred and seventy pounds, and I measured sixty-one inches in circumference. I walked with great difficulty—suffered much pain in the kidneys—my legs were swollen. I had a constant cough, and

was much troubled with drowsiness. Immediately after adopting your system, my fat began to disappear, my appetite improved, and, after a few months, my weight was reduced to one hundred and sixty pounds, and my circumference to thirty-two inches. My health is now excellent. Being landlord of the Golden Lion Hotel, at Marle, where the stages put up, my recovery is known to a great many; and travellers who stopped at my house two years ago, when I was labouring under obesity, on seeing me at present, and noticing the wonderful change which has taken place, invariably ask by what means it has been effected.

“It always affords me great pleasure to acknowledge that my cure is due to your system of treatment.

“I have the honour to be, &c.,

“JULES WIMY.

“Golden Lion Hotel,

“Marle, Aisne.”

A person who visited Marle about four months ago, and who had not seen M. Wimy since the great change had been effected in his appearance, was much astonished, and made inquiries respecting the cure. Some time afterwards, this person met, at Orleans, a wealthy

gentleman, about forty years of age, suffering from obesity, and told him what he had witnessed at Marle; recommending him at the same time to visit Paris, in order that he might have the advice of the doctor who had freed Wimpy from his excessive fat. This gentleman wrote to Marle, before coming to Paris, and received a satisfactory answer.

He called to consult with me, saying that he wished to place himself under my care, provided that it would not interfere with his business or with his usual habits. He is postmaster at Orleans, and, previous to the building of the railroad, had a great deal of business to attend to. Having many more horses than necessary for his business at Orleans, he has opened a livery stable in Paris. He is consequently obliged to attend all the fairs and markets, in order to purchase horses and provender for his two establishments,—the one at Paris and the other at Orleans, and is almost constantly travelling between these two cities, and therefore leads a life of great activity. He weighs two hundred and twenty-two pounds, and wishes to lose fifty pounds of fat, but he cannot afford to lose a day from his business.

My reply to Mr. M. was, that so far from my treatment demanding any cessation from

work, it would rather give him strength to carry it on. He began the treatment ten weeks since, and has already lost between twenty-eight and thirty pounds of fat; and, as I had promised, without causing him the loss of a single day.

It is said, that in order to be understood and believed, it is necessary to repeat the same thing over and over again. But all things must have an end; and all the cases which I might yet report, would still end in diminution of obesity. It may be said, however, that, like most medical writers, I report only favourable cases, and conceal those which are unfavourable. My answer is, that I have never treated a single case in which a favourable result has not been obtained, provided the patient has observed my directions for even eight days; and I am satisfied that if any one could be found to say that he has not been benefited, that it won't be because he has not been willing to carry out the treatment for even eight days. It has no doubt frequently happened that a patient has consulted me, and has then followed my directions for two, three, or even four days, and then, for some cause, has given them up: under these circumstances it might be said that no benefit has been derived.

Many such cases have occurred. In one instance, a wealthy man, a gold-beater by trade, living in Paris, sought my advice. He followed my system for several weeks, without success. One day I said to him, "I can only explain your want of success by attributing it to excessive drinking. You live upon meat principally, it is true; but how much liquid do you imbibe daily?" His answer was,— "I cannot abstain from drinking when thirsty, and my thirst is frequent. I spend the whole day in the factory, among fifteen or twenty workmen, and the heat is necessarily great, as the nature of our manufacture demands it, and I am therefore obliged to drink a great deal." I consequently recommended him to abstain from further trial of a system which, under these circumstances, could not possibly be of any benefit.

We meet with people who make, or seem to make, a resolution to live according to a certain plan, for eight or ten days, and who, like spoiled children, forget the very next day the resolution they had made. I have met with many such cases. One would scarcely believe that a lady, reduced to despair on account of her obesity, and threatening to commit suicide unless relieved of her *embonpoint*, could promise that she would obey my instructions to

live chiefly upon a meat diet, and to abstain from inordinate quantities of fluid, yet the very next day would resume her customary mode of living ;—breakfasting upon eggs, preserves, and two or three cups of sweetened tea; and dine upon rich pastry and sweetmeats, accompanied with a full allowance of champagne. I could not have believed it possible had I not witnessed it myself.

Men generally carry out my directions more faithfully than women, being firmer and more persevering in their resolves.

I am almost angry at times with this want of perseverance in persons who boast that they have carried out my treatment without success. It would be an easy matter to shew that the want of success in such cases is entirely their own fault.

A young lady of one of the most illustrious families of France, and married to a wealthy foreign nobleman, consulted me in the month of May, 1853, in reference to her corpulence. She told me that her cousin, the Duchess of X., had derived great benefit from my treatment; and from what she had witnessed in her case, she was induced to place herself under my care. She promised to commence my system on the following day.

A few days afterwards I saw her. She told

me she had forgotten to take her medicine the day before. In subsequent visits, she confessed that she had not taken any medicine, either because she had been up very late the previous evening and had laid in bed late that morning, or that she had been spending a day or two in the country; or that, having been out for an early ride, she had forgotten all about it. On the occasion of my last visit, she told me that she was going for some time to her country-seat, and from thence intended to visit a watering-place. The Baroness did not follow my treatment for three days consecutively, and consequently lost nothing of her *embonpoint*. Under such circumstances, want of success ought surely not to be attributed to inefficacy of the treatment.

A very corpulent professor adopted my system for eight days, and lost three pounds and a half in weight. Being relieved at the same time from a sense of oppression which had continually troubled him, he was delighted, and spoke of the happy results to many of his acquaintances. Unfortunately at this time he received from the country a present of a large basket of grapes, and being very partial to them, neglected my instructions, and partook of them inordinately as long as they lasted. The consequence is, that the

professor is as fat as ever, although he had followed my plan of treatment for eight days. Now whose fault is this? Nevertheless, his acquaintances, to whom he had spoken of being under my care, will attribute the failure to me. I shall see him again, no doubt, some of these days, when in danger of suffocation.

The reader who has perused the preceding cases of cure, may say that I have omitted to speak of obesity accompanied with skin disease, and in my introduction mention has been made of its frequency. In truth, many such cases have been met with; but skin disease, in my opinion, is of such a nature that it is better not to give a hint even of the parties in whom it has been met with and cured at the same time with co-existing corpulence.

My method of reducing obesity being thus frankly explained, is perhaps likely to lose its value in the eyes of many, owing to its extreme simplicity. M. Desbouillons, of Brest, a patient whom I successfully treated, wrote to me on the 15th August, 1833:—"On reading your treatise a second time, I cannot but express my astonishment that the medical faculty should so long have failed to discover the means which you now so successfully employ for the cure of obesity."

Having accomplished the object I had in

view, it matters not whether it be the result of little study or of long and deep enquiry into the secrets of animated nature; my satisfaction consists in having destroyed those false and prejudicial doctrines which had existed for ages in the writings and teachings of philosophers, and in having demonstrated a truth destined to render important services to our common humanity.

CHAPTER VII.

ON THE SELECTION OF ALIMENTARY SUBSTANCES
FAVOURABLE TO THE REDUCTION
OF CORPULENCE.

It is to be borne in mind, that in dividing alimentary matter into two kinds—one fitted to develop fat, and the other having an opposite tendency—my object is merely to suit the indispensable requirements of my plan of treatment. Nor is the conclusion to be drawn, that in order to diminish corpulence, an exclusive meat diet is absolutely necessary. Man is omnivorous; that is to say, he partakes of everything entering into the composition of ordinary alimentation; but, for the purposes of my system, azotized substances should constitute, though not exclusively, his principal food.

Large quantities both of animal and vegetable substances compose the ordinary diet of man. According to some philosophers, man should live on flesh only; while others maintain that man is by nature a vegetable feeder. Most naturalists, however are agreed that the human species is omnivorous; that is to say,

can live both upon vegetable and animal matter. A certain proof, in my opinion, that such is the case, is to be found in the fact that man is provided with the two kinds of teeth, the one appertaining especially to carnivorous, and the other to herbivorous animals.

It is remarkable that man, in his present state of civilization, does not instinctively recognize the kind of food which is beneficial or prejudicial to his well-being. Experience alone teaches him what is good or bad. With the lower animals it is otherwise; they have the power to discern that which is suitable for food. The colt and the kid know how to select, among the varied herbage, the particular grasses which are suitable to their organization. Domesticated animals, having but an insufficiency of food, do sometimes partake of noxious plants. It may be that man, in consequence of his civilization, has lost that instinct possessed by the lower animals, and in blind confidence partakes of everything which is served to him in the shape of food; and this view derives support from the fact, that savages, and people but partially civilized, refuse to eat anything they are unacquainted with, no matter how temptingly it may be prepared.

The uneducated peasantry of France, at this day, will not taste food to which they are un-

accustomed, or if they do, it is only with great mistrust.

It is matter of daily experience, that man can simultaneously feed upon both vegetable and animal matter, and can also live when restricted to one of these alone; such restriction, however, being better borne under the varied conditions of age, season and climate.

From these considerations it follows that, for the accomplishment of a given purpose, man has the privilege of selecting certain alimentary substances, and of refusing many others; the health of the individual, who may thus submit to the diet of his choice, being in no wise affected thereby.

Bearing in mind the well established principles of physiology and chemistry, together with the precepts set forth in the preceding pages, we may be safely guided in the selection of such alimentary substances as will conduce to the fixity of a certain condition of *embonpoint*, although having a tendency to redundancy; or which, on the other hand, will insure a diminution of obesity. Such results can be obtained by paying attention to the following remarks:

That kind of meat known as game is very nutritious, occupies but small space, and consequently only moderately distends the alimen-

tary canal. It contains but a small amount of carbon, relatively to the other compounds, and therefore should be used as much as possible : such as venison, hare, the warren rabbit, woodcock, snipe, partridge, quail, plover, wild duck, &c.

The fluid portion of all ragouts should be avoided by those who dread corpulence, and game should therefore be roasted rather than stewed. The same may be said of butcher's meat, such as surloin of beef, beefsteak, veal cutlet, mutton chop, fresh pork, leg of mutton, &c. Gelatinous dishes, such as calves' feet and tripe, should be avoided. Poultry, when roasted, is not contra-indicated.

It is a matter of observation, that those races which live chiefly upon fish are gross and dull, pale and lymphatic, and less courageous than such as live upon flesh. A fish diet is consequently favourable to the development of fat, and the usual accompaniment of butter sauce is also productive of a like result.

The anti-obesic treatment, therefore, requires that fish should be partaken of sparingly; still it has been remarked that patients, while undergoing treatment, who eat principally of meat, with a very small amount of fish, do nevertheless succeed in the accomplishment of the object they have in view. The most nutri-

tious fish are turbot, trout, sole, salmon, perch, pike, tench and carp. On the other hand, shell fish, such as oysters, lobsters, crabs and shrimps, have a tendency to impede the formation of fat.

Vegetables, such as lettuce, chicory, sorrel, artichokes, spinach, green pease, beans, cabbage, celery, and all such as are used by way of salad, are not very nutritive, but contain much watery and mucilaginous matter, favourable to the development of corpulency: the same may be said of carrots, turnips, potatoes, rice, beet-root, maccaroni and vermicelli bread; all kinds of cakes, pastry and biscuits, which are made of wheaten flour, are decidedly contra-indicated, as are also eggs, cream, cheese and butter.

In reference to chocolate, much difference of opinion has hitherto existed as to its nutritious properties; but we know by experience that it is easy of digestion, and eminently suited to such as are subject to great mental exertion. Some dietists have held that chocolate has a tendency to prevent any augmentation of corpulency. When made with water, it is decidedly preferable to coffee made with milk, the latter being productive of fat. Milk, by virtue of its composition, combines all the elements which are fitted for the development and nutrition of the body; casein containing nitrogen,

a fatty matter (butter), and a saccharine substance (sugar of milk).

Chemistry reveals the remarkable fact, that the composition of casein or the cheesy portion of milk, is identical with that of the fibrin and albumen of the blood. Under this aspect, therefore, milk is very nutritious.

The sugar and butter which exist in milk, have no analogy with flesh; according to analysis, they are composed of carbon and the elements of water. When, therefore, we partake of milk, we obtain in one and the same substance all the elements which are necessary for the growth and nutrition of the body, and such is the case in infant life. Since, however, both carbon and hydrogen, in very large proportion, enter into the composition of milk, it is advisable, whenever there is a manifest tendency to corpulence, that the use of it as an article of diet should be avoided. Infants are usually fat, owing to the elements of adipose matter forming so large a proportion of their food, whether that consist of milk alone, or in combination with starchy or farinaceous and saccharine substances.

CHAPTER VIII.

With few exceptions, the corpulent, both male and female, drink a great deal with their meals; and I am more and more convinced, by daily experience, that the large amount of fluid thus imbibed has powerfully contributed to produce their present condition. It may be said that it is constitutional with them to require so much drink. I grant that many persons are in the habit of drinking a great deal more than others, and even that they are constitutionally so inclined; but I cannot allow that they are compelled to drink as much as they do. Habit exercises a powerful influence over all our actions; and I have no doubt that, notwithstanding the existence of a natural predisposition to drink a great deal at meal time, the inclination might be held in check, by not yielding too easily to the desire. Many people, without thinking, increase and stimulate their thirst by making use of highly seasoned dishes; it would be well that they should exercise caution in this respect. Even when using a moderate amount of beverage, a selection as to kind is necessary. Beer and cider being especially

rich in aqueous and mucilaginous matter, are by virtue of these elements particularly prone to the production of corpulence. All kinds of drink, when taken in excess, act rather as depressants than stimulants of the nervous centres, and a want of physical and mental activity, alike predisposes to obesity.

Alcoholic drinks of every kind tend to the development of fat, owing to the large amount of the carbonaceous element they contain. Men who use brandy in excess are frequently so puffy and soft that you can scarcely discover the presence of muscular tissue beneath the skin. When blood is abstracted from such persons, it is found to be thin, and to contain a less amount of the most important of the sanguineous elements. We must not deceive ourselves; fat is not to be taken always as an evidence of strength, but, on the contrary, should be regarded as indicative of want of tone and of vital power, as in the case of the aged, who are frequently corpulent though infirm; young chlorotic females; persons deprived of a due supply of fresh air; and such as make use of an excessive amount of alcoholic drink. With respect to the last, it may be said, perhaps, that some are to be met with who, far from being corpulent, are excessively thin, in consequence of drinking

large quantities of brandy; and such is indeed sometimes the case, but it is due to the fact that some essential organ of the body is suffering under the pernicious influence. And although the person may have been, at a former period, fat and lusty, the body finally becomes wearied with this continued excess, the stomach is diseased, nutrition is impeded or wholly suspended, and a complete destruction of the vital organism results.

It will scarcely be believed, yet it is nevertheless true, that females can bear these excesses for a longer period than men, and that when they do unfortunately yield to them, they indulge to even a greater extent.

Observation and experience fully corroborate the assertion. Among a great number of cases that could be cited, one must suffice. A young lady, a creole, living in Paris, was in the habit of taking daily a pint of brandy, without its producing any disturbance of her faculties, and, it might be almost said, without committing any excess. When she took a larger quantity,—which indeed was often the case,—she became loquacious and troublesome to her attendants: complained of headache and hallucinations, which deprived her of sleep, and said that she dreaded an attack of apoplexy. During four or five years of pro-

fessional attendance upon her, I have been witness to several of these fits of excess. She rarely or ever walked, but made use of her carriage, rose late, and seldom partook of meat unless strongly seasoned with red pepper. She became excessively obese under this system of living, and when I lost sight of her she was an utter deformity. Her complexion, however, was still good, and I could attribute her obesity only to her extreme intemperance.

Water is the natural beverage of man ; but being no longer in a state of nature, that which was at first destined to assuage his thirst, is not found to be in accordance with his changed habit,—his altered mode of life consequent upon civilization. To the water a small quantity of wine may be advantageously added, producing a tonic and slightly stimulating drink, suitable to such stomachs as may stand in need of it as an adjunct to digestion.

Pure wine is not suitable for ordinary beverage, but will rather excite thirst than allay it, and at the same time may induce irritation, or even inflammation of the stomach. Those only who use a great deal of exercise in the open air can tolerate pure wine with impunity.

Many of the white wines produce a diuretic effect, and are less apt to induce corpulence than the red wines.

Champagne is certainly most agreeable to the palate, and on account of its stimulating effect, even when taken in small quantity, is much in vogue; yet it is not suited to such as have a tendency to make fat. A young lady under my care, who was enormously fat, acknowledged that she lived exclusively on pastry and sweetmeats, and drank nothing but champagne. A change both of food and beverage effected a speedy cure. In some cases this wine gives rise to indigestion, owing to the large amount of free carbonic acid gas which it contains, acting injuriously upon the nerves which are distributed to the stomach.

A strong infusion of tea is one of those beverages having a tendency to oppose the formation of fat; it is nevertheless nutritious, inasmuch as it prevents the disintegration of tissue. Moreover, its action on the nervous system is exhilarating. On account of these properties it is much used in England by all classes. A weak infusion of tea, with a superabundance of milk and sugar, is, on the other hand, highly conducive to the formation of fat, and therefore should be avoided.

The beneficial effects of tea and coffee are due to substances heretofore named "*theine*" and "*caffeine*," according to the source whence they were obtained. These substances are

now known to be identical, although derived from plants of entirely different families. An infusion of coffee produces effects similar to those induced by tea. If weak, it is favourable to the development of corpulence; but if strong, it acts as a powerful stimulant upon the nervous system, and assists digestion. A very strong infusion of coffee, more particularly when taken upon an empty stomach, is powerfully anti-obesic in its effects.

It has been alleged that coffee must be nutritious, because labourers are enabled to support life upon a small amount of solid food when supplied with an abundance of coffee. Now the fact is, that coffee has all the properties of tea, and, like it, prevents waste of tissue, thereby economizing food to the utmost, and enabling the labourer to do a large amount of bodily work with a comparatively slight expenditure of the organized tissues of the living body.